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VOL. XXIII.

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FOR THE YEAR 1881.

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1882.

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Elected

1862 DUNCAN, JAMES MATTHEWS, M.D., A.M., LL.D., F.R.S.Ed., Physician-Accoucheur to, and Lecturer on Midwifery and Diseases of Women and Children at, St. Bartholomew's Hospital ; 71, Brook street, Grosvenor square, W. *Council*, 1878-80. *Pres.* 1881-82.

1870 FARRE, ARTHUR, M.D., F.R.S. (HON. PRES.), Physician-Accoucheur to H.R.H. the Princess of Wales ; 18, Albert Mansions, Victoria street, Westminster.

1871 KEILLER, ALEXANDER, M.D., F.R.S. Ed., Physician to the Royal Maternity Hospital, Lecturer on Midwifery and Diseases of Women and Children at Surgeons' Hall, Edinburgh ; 21, Queen Street, Edinburgh.

1871 KIDD, GEORGE H., M.D., F.R.C.S.I., Obstetrical Surgeon to the Coombe Lying-in Hospital, and Examiner in Midwifery at the Queen's University and Royal College of Surgeons of Ireland; 30, Merrion square south, Dublin.

ORDINARY FELLOWS.

JANUARY, 1882.

Those marked thus (*) have paid the Composition Fee in lieu of further annual subscriptions.

The letters O.F. are prefixed to the names of the "Original Fellows" of the Society.

Elected

1869 ADAMS, THOMAS RUTHERFORD, M.D., Surgeon to the Croydon General Hospital; Stamford House, St. James's road, West Croydon, S.

1879 ADDIS, PHILIP, L.R.C.P. Ed., Iver, Bucks.

1859 ALDERSEY, William Hugh, M.B. Lond., F.R.C.S., 37, St. Andrew's Square, Surbiton.

1871 ALDERSON, FREDERICK H., M.D., Southerton House, Glenthorne road, Hammersmith, W.

1878 ALDRED, HENRY ALLEN, M.D., 4, Westbourne park, W.

1878 ALFORD, FREDERICK STEPHEN, 61, Haverstock hill, N.W.

1873 ALLEN, HENRY MARCUS, M.R.C.P. Ed., 38, Regency square, Brighton.

1859 AMSDEN, GEORGE JOHN, M.D., Holly Lodge, Crawley, Sussex.

1878 ANDERSON, IZETT WILLIAM, M.D., 92, Hanover street, Kingston, Jamaica. *Hon. Loc. Sec.*

1875 ANDERSON, JOHN FORD, M.D., C.M., 28, Buckland crescent, Belsize park, N.W. *Council*, 1882.

1866 ANDREWS, HENRY CHARLES, M.D., 1, Oakley square, N.W. *Council*, 1882.

1859 ANDREWS, JAMES, M.D., 149, Camden road, N.W. *Council*, 1881.

1870 APPLETON, ROBERT CARLISLE, Toll Garel, Beverley.

Elected

1859 Archer, John, F.R.C.S., 9, Carpenter road, Edgbaston, Birmingham.

1871 Argles, Frank, L.R.C.P. Ed., Hermon Lodge, Wanstead, Essex, N.E.

1861 Armstrong, John, M.D., Green street green, Dartford, Kent.

O.F. Aveling, James H., M.D., Physician to the Chelsea Hospital for Women; 1, Upper Wimpole Street, W. *Council*, 1865-66, 1872. *Hon. Sec.* 1873. *Hon. Lib.* 1874-6. *Vice-Pres.* 1877-8.

1872 Ayling, Arthur H. W., 94a, Great Portland street, W.

1859 Ayling, William Henry, L.R.C.P. Ed., 103, Great Portland street, W.

1880 Bailey, Francis James, 51, Grove Street, Liverpool.

1873 Bailey, James Johnson, M.D., L.R.C.P. Ed., Hill Crest, Marple, Cheshire.

1877 Baker, Albert de Winter, 2, Lawn terrace, Dawlish, Devon.

1876 Baker, John Penning, 6, York place, Portman square, W.

1859 Baker, John Wright, Surgeon to the Derbyshire General Infirmary; 102, Friar gate, Derby. *Council*, 1879-80. *Hon. Local Sec.*

1880 Balls-Headley, *see* Headley (Balls).

O.F. Bannister, John Henry, 436, Oxford street, W.

1869 Bantock, George Granville, M.D., Surgeon to the Samaritan Free Hospital; 12, Granville place, Portman square, W. *Council*, 1874-6.

1874 Barber, Edward, 259, Glossop road, Sheffield.

1874 Barclay, John, M.D., 10, Low street, Banff.

O.F. Barnes, Robert, M.D., F.R.C.P., Obstetric Physician to and Lecturer on Midwifery at, St. George's Hospital; 15, Harley street, Cavendish square, W. *Vice-Pres.* 1859-60. *Council*, 1861-62, 1867. *Treas.* 1863-64. *Pres.* 1865-66. *Trustee.*

Elected

1875 BARNES, R. S. FANCOURT, M.D., Physician to the British and General Lying-in Hospitals; Assistant Physician to the Royal Maternity Charity; Obstetric Physician to the St. George's and St. James's Dispensary; 7, Queen Anne street, Cavendish square, W. *Council*, 1879-81.

1877 BARNES, THOMAS HENRY, M.D., 54, London road, Croydon, S.

1863 BARRATT, JOSEPH G., M.D., 8, Cleveland gardens, Bayswater, W.

1861* BARTRUM, JOHN S., F.R.C.S., Surgeon to the Bath General Hospital; 13, Gay street, Bath. *Hon. Loc. Sec. Council*, 1877-9.

1866 BASSETT, JOHN, M.D., Professor of Midwifery at the Queen's College, Birmingham; 144, Hockley Hill, Birmingham. *Council*, 1874-6. *Vice.-Pres.* 1880-2.

1873 BATE, GEORGE PADDOCK, M.D., L.R.C.P. Ed., 412, Bethnal Green road, E; and 2, Northumberland Houses, King Edward road, Hackney. *Council*, 1882.

1867 BATTEN, RAYNER W., M.D., Physician to the Gloucester General Infirmary; 1, Brunswick square, Gloucester. *Hon. Loc. Sec.*

1871 BEACH, FLETCHER, M.B., Darenth Asylum, Dartford, Kent.

1871 BEADLES, ARTHUR, Park House, 11, Park road terrace, Forest hill, S.E.

1866 BELCHER, HENRY, M.D., L.R.C.P. Ed.; 12, Pavilion parade, Brighton.

1871 BELL, ROBERT, M.D. Glasg., 29, Lynedoch street, Glasgow.

1880 BENINGTON, ROBERT CREWDSON, Rosebank, Copleston road, East Dulwich.

1873* BENNET, JAMES HENRY, M.D., The Ferns, Weybridge, and Mentone. *Council*, 1881-2.

O.F. BERRY, SAMUEL, F.R.C.S., Consulting Surgeon-Accoucheur to the Queen's Hospital, and Professor of Midwifery and the Diseases of Women and Children in the Queen's College; 4, Cavendish gardens, Cavendish road, Clapham common, S.W. *Vice-Pres.* 1859. *Hon. Loc. Sec.*

Elected

1879 Biggs, J. M., 6, Sunnyside villas, Child's hill, Hendon, N.W.

1878 Bindon, Wm. John Vereker, M.D., F.R.C.S. Ed., 2, Elm villas, Kilburn, N.W.

1868 Black, James Watt, M.D., Obstetric Physician to the Charing Cross Hospital; 15, Clarges street, Piccadilly, W. *Council*, 1872-4.

1880 Black, Robert Francis, L.R.C.P. Ed., Examiner in Midwifery, Trinidad Medical Board; 4, Chacon street, Port of Spain, Trinidad.

1861* Blake, Thomas William, Hurstbourne, Bournemouth, Hants.

1872 Bland, George, Surgeon to the Macclesfield Infirmary; Park Green, Macclesfield.

1866 Blease, Thomas, Clairville, Altrincham, Cheshire.

1868 Boggs, Alexander, M.D., late of H.M.'s Madras Armv 362, Rue St. Honoré, Paris.

1879 Bonnor, William James, 56, Maury Road, Stoke Newington, N.

1872 Bosworth, John Routledge, Sutton, Surrey.

1866 Boulton, Percy, M.D., Physician to the Samaritan Free Hospital; Obstetric Physician to Out-Patients, Queen Charlotte's Lying-in Hospital; 6, Seymour street, Portman square, W. *Council*, 1878-80.

1877 Bowkett, Thomas Edward, 145, East India Road, Poplar, E.

1869 Boyd, Herbert, Surgeon-Major, 14th Sikhs [agents, Henry S. King and Co., 45, Pall Mall].

1877 Bradley, Michael McWilliams, M.B., Jarrow-on-Tyne.

1873 Braithwaite, James, M.D., Lecturer on Midwifery and Diseases of Women and Children at the Leeds School of Medicine; Assistant Surgeon to the Leeds Hospital for Women and Children; 16, Clarendon road, Little Woodhouse, Leeds. *Vice-Pres.* 1877-9. *Hon. Loc. Sec.*

Elected

1862 BRAITHWAITE, WILLIAM, M.D., late Lecturer on Midwifery, Leeds School of Medicine; Clarendon House, 20, Clarendon road, Leeds. *Council*, 1869-70.

1880 BRANFOOT, ARTHUR MUDGE, M.D., Pantheon road, Madras. *Hon. Loc. Sec.*

1878 BRANTHWAITE, HARRISON, F.R.C.S. Ed., Westbury house, Willesden, N.W.

1875 BREWER, ALEXANDER HAMPTON, 201, Queen's road, Dalston, E.

1862 BRICKWELL, JOHN, Sawbridgeworth, Herts.

1872 BRIDGWATER, THOMAS, M.B., Harrow-on-the-Hill, N.W.

1864 BRIGHT, JOHN MEABURN, M.D., The Glen, Forest hill, Sydenham, S.E. *Council*, 1873-74.

1869 BRISBANE, JAMES, M.D., 21, Park road, Regent's park, N.W.

1871 BROCKMAN, EDWARD FORSTER, Assistant-Surgeon, General Hospital, Madras, and Professor of Pathology, Madras Medical College. [*Per* Messrs. Richardson and Co., East India Army Agency, 13, Pall Mall, S.W.]

1866 BRODIE, GEORGE B., M.D., Consulting Physician-Accoucheur to Queen Charlotte's Lying-in Hospital; 3, Chesterfield street, Mayfair, W. *Council*, 1873-75.

1876 BROOKHOUSE, CHARLES TURING, M.D., 43, Manor road, New Cross, S.E.

1878 BROOKS, JOB EDWIN, L.R.C.P. Ed., 54, Mill street, Ludlow, Salop.

1868 BROWN, ANDREW, L.R.C.P. Ed., Elton villa, Bartholomew road, Kentish town, N.W.

1865 BROWN, D. DYCE, M.D., 29, Seymour Street, Portman square, W.

1878 BROWN, GEORGE, 3, Gibson square, Islington.

1866 BROWN, GEORGE DRANSFIELD, Henley villa, Uxbridge road, Ealing, Middlesex.

1878 BROWNING, BENJAMIN, 70, Union road, Rotherhithe.

1880 BRUCE, ROBERT, 70, Old street, St. Luke's, E.C.

1876 BRUNJES, MARTIN, 27, Edgeware road, W.

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1865 BRUNTON, JOHN, M.D., M.A., Surgeon to the Royal Maternity Charity; 21, Euston road, N.W. *Council*, 1871-3. *Vice-Pres.* 1882.

1863 BRYANT, THOMAS, F.R.C.S., Surgeon to Guy's Hospital; 53, Upper Brook street, W. *Council*, 1866-67.

O.F. BRYANT, WALTER JOHN, F.R.C.S., M.R.C.P. Ed., 23A, Sussex square, Hyde park gardens, W. *Council*, 1859.

1870 BUCK, JOSEPH RANDLE, L.R.C.P. Ed., 26, Sidbury, Worcester.

1878 BUNCOMBE, J. DOBREE, Prêtre Meintyes Fontein, Beaufort West, Extension Railway, Cape Colony.

1861 BUNNY, JOSEPH, M.D., Hon. Surgeon to the Newbury Dispensary; Northbrook street, Newbury, Berks.

1877 BURCHELL, PETER LODWICK, M.B., Surgeon-Accoucheur to the City of London Lying-in Hospital; 2, Kingsland road, E. *Council*, 1882.

1877 BURD, EDWARD, M.D., M.C., Senior Physician to the Salop Infirmary; Newport House, Shrewsbury. *Hon. Loc. Sec.*

1878 BURN, STACEY SOUTHERDON, Richmond, Surrey.

1862 BURTON, JOHN MOULDEN, F.R.C.S., Lee park lodge, Lee, Kent, S.E. *Council*, 1868-69.

1878 BURTON, WILLIAM, L.R.C.P. Ed., 79, New North road, Hoxton, N.

1864 BUTLER, FREDERICK JOHN, M.D., Surgeon to Winchester College and St. Cross Hospital, and to the Hants County Hospital, Winchester. *Hon. Loc. Sec.*

1868 BUTT, WILLIAM FREDERICK, L.R.C.P. Lond., 25 Park street, Park lane, W. *Council*, 1876-78.

1861 CANDLISH, HENRY, M.D., Physician to the Alnwick Infirmary; 26, Fenkle street, Alnwick, Northumberland.

1861 CANDY, JOHN, M.D., Surgeon-Major, Army Medical Department, Station Hospital, Portland. [Messrs. Wm. Watson & Co., Anglo-Indian Agency, 27, Leadenhall street, E.C.] 3, Prospect place, Portland, and Station Hospital, Portland.

Elected

1872 Carless, Edward Nicholls, M.B., C.M., Lansdowne grove, Devizes, Wilts.

1863 Carlyle, David, M.D., 2, The Crescent, Carlisle. *Hon. Loc. Sec.*

1872 Carter, Charles Henry, M.D., Physician to the Hospital for Women; 45, Great Cumberland place, Hyde Park, W. *Council*, 1880-2.

1877 Carver, Eustace John, Fairlawn, Fulham.

1869 Caskie, John Boyd, M.D., 89, Goswell road, E.C.

1878 Caskie, William Alex., M.A., M.B., Manse Court, 17, Main street, Largs, Ayrshire, N. B.

1870 Causton, William Henry, 1, Pomona place, Hammersmith.

1863 Cayzer, Thomas, Mayfield, Aigburth, Liverpool.

1875 Chaffers, Edward, F.R.C.S., 54, North street, Keighley, Yorkshire.

1873 Chalmers, John, M.D., 43, Caledonian road, N.

1864 Chambers, Thomas, F.R.C.P. Ed., F.R.C.S. Ed., Senior Physician to the Chelsea Hospital for Women, Consulting Physician Accoucheur to the Western Maternity; 64, Chester square, S.W. *Council*, 1874-6.

1876 Champneys, Francis Henry, M.A., M.B. Oxon., Assistant Obstetric Physician to St. George's Hospital, 60, Great Cumberland place, W. *Council*, 1880-1. *Hon. Lib.* 1882.

1859 Chance, Edward John, F.R.C.S., Surgeon to the Metropolitan Free Hospital and City Orthopædic Hospital; 59, Old Broad street, City, E.C.

1867* Charles, T. Edmondstoune, M.D., Professor of Midwifery at the Calcutta Medical College, 10, Harrington street, Calcutta. *Council*, 1882.

1874 Charlesworth, James, 25, Birch terrace, Hanley, Staffordshire.

1868 Child, Edwin Venham, New Malden, Kingston-on-Thames, Surrey.

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1863* CHISHOLM, EDWIN, M.D., Abergeldie, Ashfield, near Sydney, New South Wales. [Per Messrs. Turner and Henderson, care of Messrs. W. Dawson, 121, Cannon street, E.C.].

1879 CHURCHILL, ALEX. FERRIER, M.B., Surgeon-Major, V Lines, South Camp, Aldershot.

1859 CLAREMONT, CLAUDE CLARKE, Millbrook House, 1, Hampstead road, N.W.

1859 CLARK, JAMES FENN, Clent house, Beauchamp square, Leamington. *Hon. Loc. Sec.*

1874 CLARK, JAMES HENRY, L.R.C.P. Ed., Goschen Post-office, St. Elizabeth, Jamaica. [Per J. W. Goodinge, 16, Aldersgate street, E.C.]

1879 CLARKE, REGINALD, South Lodge, Lee park, Lee, S.E.

1872 CLARKE, WILLIAM MICHELL, late Surgeon to the British General Hospital; 2, York buildings, Clifton, Bristol.

O.F. CLAY, CHARLES, M.D., late Lecturer on Midwifery and Clinical Medicine in St. Mary's Hospital, Manchester; Audenshaw Lodge, Audenshaw; and 101, Piccadilly, Manchester. *Council*, 1863-65.

1876 CLAY, GEORGE LANGSFORD, West View, 443, Moseley road, Birmingham.

O.F. CLAY, JOHN, Professor of Midwifery, Queen's College, Birmingham; Allan House, Steelhouse lane, Birmingham. *Council*, 1868-69. *Vice-Pres.* 1872-4.

O.F. CLEVELAND, WILLIAM FREDERICK, M.D., Stuart villa, 199, Maida vale, W. *Council*, 1863-64. *Vice-Pres.* 1875-77.

1861 CLOGG, STEPHEN, Looe, R.S.O., Cornwall.

1881 CLOSE, JAMES ALEX, M.B., L.R.C.P. Ed., Summerfield, St. Clair Co., Illinois, U.S.A.

1865* COATES, CHARLES, M.D., Physician to the Bath General and Royal United Hospitals; 10, Circus, Bath.

1859 COCKELL, FREDERICK EDGAR, 144, Amherst road, Hackney, N.E.

Elected

1878 Cockell, Frederick Edgar, Jun., 176, Richmond road, Dalston, E.

1875 Coffin, Richard Jas. Maitland, F.R.C.P. Ed., Alwington house, Baron's court, West Kensington, W.

1878 Coffin, Thomas Walker, 81, Queen's crescent, Haverstock hill, N.W.

1875 Cole, Richard Beverly, M.D. Jefferson Coll. Philad., San Francisco, California, U.S.

1876 Coleman, Matthew Owen, M.D., 5, Victoria terrace, Surbiton, Surrey.

1877 Colman, Walter Tawell, Hon. Surgeon to the Brighton Hospital for Women; 87, Buckingham road, Brighton.

1866 Coombs, James, M.D., Bedford.

1873 Cooper, Frank W., Leytonstone, Essex.

1874 Cooper, Herbert, L.R.C.P. Ed., 3, Rosslyn terrace, Hampstead, N.W.

1861 Cooper, John, M.R.C.P. Ed., Clapham rise, S.W.

1875 Cordes, Aug., M.D., Professor of Obstetrics at the University of Geneva; 8, Corraterie, Geneva.

1866 Cornwall, James, F.R.C.S., Fairford, Gloucestershire.

1860 Corry, Thomas Charles Steuart, M.D., Senior Surgeon to the Belfast General Dispensary; 146, Donegall Pass, Belfast. *Council*, 1867. *Hon. Loc. Sec.*

1859 Cory, Frederick Charles, M.D., Portland villa, Buckhurst hill, Essex. *Council*, 1867-69.

1875 Cory, Robert, M.D., Assistant Obstetric Physician to St. Thomas's Hospital; 73, Lambeth Palace road, S.E. *Council*, 1879-81.

1879 Cowan, George Hoyle, M.B., Napanee, Ontario, Canada.

1869 Cox, Richard, L.R.C.P. Ed., Theale, near Reading.

1877 Crawford, James, L.K.Q.C.P.I., Ightham, Sevenoaks.

1881 Creasy, James Gideon, Brasted, Sevenoaks, Kent.

1876 Crew, John, Higham Ferrers, Northamptonshire.

1859 Croft, J. McGrigor A. T., M.D., M.R.C.P., 15, Abbey road, St. John's Wood, N.W.

Elected

1866 CROFT, ROBERT CHARLES, L.R.C.P. Ed., 204, Camden road, N.W.

1874 CROMBIE, CHARLES MANN, M.B. & C.M., 10, Union terrace, Aberdeen.

1881 CRONK, HERBERT GEORGE, M.B. Cant., Repton, near Burton-on-Trent.

1860 CROSS, RICHARD, M.D., 6, Queen street, and Carlton House, Belmont road, Scarborough, Yorkshire. *Hon. Loc. Sec. Council*, 1880-1.

1869 CROSS, ROBERT SHACKLEFORD, Petersfield, Hants.

1867 CROUCHER, HENRY, West Hill, Dartford, Kent.

1875* CULLINGWORTH, CHARLES JAMES, Surgeon to St. Mary's Hospital, Manchester; 260, Oxford road, Manchester.

1859 CULPEPER, WILLIAM MOE, 1, Brunswick terrace, Palace gardens, Kensington, W.

1862 CUMBERBATCH, LAWRENCE TRENT, M.D., 25, Cadogan place, Belgrave square, S.W. *Council*, 1868-70. *Vice-Pres.*, 1878.

1867 CUOLAHAN, HUGH, M.D., 9, Grange road, Bermondsey, S.E.

1859 CURGENVEN, J. BRENDON, 11, Craven hill gardens, Bayswater, W. *Council*, 1870-72.

1868 DALY, FREDERICK HENRY, M.D., 185, Amhurst road, Hackney Downs, N.E. *Council*, 1877-9.

1876 DAVIES, GOMER, L.R.C.P. Ed., 66, Pembridge villas, Bayswater, W.

1878 DAVIES, HENRY NAUNTON, Glyn Rhondda House, Cymer, Pontypridd, Glamorganshire.

O.F. DAVIS, JOHN HALL, M.D., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery and Diseases of Women and Children at, the Middlesex Hospital; Physician to the Royal Maternity Charity; Consulting Physician-Accoucheur to the St. Pancras Infirmary; 37, Gloucester place, Portman square, W., and 41, Boundary road, N.W. *Council*, 1859, 1864-65. *Vice-Pres.* 1861-63. *Pres.* 1867-68.

Elected

1863 DAVIS, ROBERT ALEX., M.D., St. Michael's Villas, Trent Valley Road, Lichfield, Stafford.

1873 DAVISON, FRANCIS, L.R.C.P. Ed., Saffi, Morocco.

1877 DAVSON, SMITH HOUSTON, M.D., Camden villa, 203, Maida vale, W.

1878 DAY, EDMUND OVERMAN, House Surgeon to the Royal Infirmary for Children and Women, Waterloo Bridge road.

1880 DAY, WILLIAM HANKES, Surgeon to the City Prisons, Norwich; All Saints' Green, Norwich.

1859 DAY, WILLIAM HENRY, M.D., Physician to the Samaritan Free Hospital for Women and Children; 10, Manchester square, W. *Council*, 1873-75.

1877 DEAN, MARSHALL M. P., M.D., Keene, Ontario, Canada.

1872 DENTON, GEORGE BAGSTER, Surgeon to the Ladies' Charity and Lying-in Hospital; 2, Abercromby square, Liverpool.

1877 DEWAR, JOHN, L.R.C.P. Ed., 132, Sloane street, S.W.

1860 DICKENSON, JOHN, F.R.C.S., Hon. Surgeon to the Wrexham Infirmary; Wrexham, Denbighshire.

1879 DOLAN, THOMAS MICHAEL, L.R.C.P. Ed., 32, North parade, Halifax.

1877 DONOVAN, JOHN ISLAND, M.D., Skibbereen, Co. Cork.

1879 DORAN, ALBAN H. G., F.R.C.S., Surgeon to Out-Patients, Samaritan Free Hospital; 50, Seymour street, Portman square, W.

1880 DOWNES, DENIS SIDNEY, 55, Kentish town road, N.W.

O.F. DRAGE, CHARLES, M.D., Hatfield, Herts. *Council*, 1861-4.

1878 DRING, WILLIAM ERNEST, L.R.C.P. Ed., Boughton-under-Blean, Faversham, Kent.

O.F. DUNCAN, JAMES, M.B., 8, Henrietta street, Covent garden, W.C. *Council*, 1873-74.

1871 EASTES, GEORGE, M.B., F.R.C.S., Surgeon-Accoucheur to the Western General Dispensary; 69, Connaught street, Hyde park square, W. *Council*, 1878-80.

Elected

1866 Easton, John, M.D., 19, Norfolk Crescent, Hyde park, W. *Council*, 1878.

1878 Eaton, John Chamberlin, Ancaster, Grantham, Lincolnshire.

1877 Eddowes, William, Surgeon to the Salop Infirmary, 3, The College, Shrewsbury.

1867 Edis, Arthur W., M.D., Assistant-Physician-Accoucheur to the Middlesex Hospital; 22, Wimpole street, W. *Council*, 1873-74. *Hon. Sec.* 1874-77. *Vice-Pres.* 1878-80.

1879 Elder, George, M.B., C.M., Surgeon to the Hospital for Women, Nottingham; 17, Regent street, Nottingham. *Hon. Loc. Sec.*

1879 Elkington, Arthur Guy, Surgeon-Major, Grenadier Guards, 52, Gillingham street, Eccleston square, S.W.

1878 Ellery, Richard, L.R.C.P. Ed., Plympton, Devon.

1873 Engelmann, George Julius, A.M., M.D., 3003, Locust street, St. Louis, Missouri, U.S.

1879 Evershed, Charles L., Maltravers street, Arundel, Sussex.

1875 Ewart, John Henry, Surgeon to St. Mary's Hospital for Women and Children; Limefield House, Cheetham hill, Manchester.

1875 Eyeley, Joseph Frederick, L.R.C.P. Lond., 5, Hill-park crescent, Plymouth. *Hon. Loc. Sec.*

1876 Farncombe, Richard, 40, Belgrave street, Balsall heath, Birmingham.

1869 Farquhar, William, M.D., Surgeon-Major, Madras Army, Bangalore, Madras Presidency.

1861 Farr, Geo. F., L.R.C.P. Ed., Slade House, 175, Kennington road, S.E.

1881 Farrer, George Albert, Spring villa, Brighouse, Halifax.

1879 Fayrer, Sir Joseph, M.D., K.C.S.I., Hon. Physician to H.M. the Queen and to H.R.H. the Prince of Wales; Physician to H.R.H. the Duke of Edinburgh; President, Medical Board, India Office, &c.; 53, Wimpole street, Cavendish square.

Elected

1868 FEGAN, RICHARD, M.D., 1, Charlton park terrace, Old Charlton, Kent.

1872 FERGUSSON, ALEXANDER, M.D., F.R.C.S. Ed., Tweedbrae House, Peebles, N.B.

1861 FETHERSTON, GERALD H., M.D.; Hon. Physician to the Melbourne Lying-in Hospital, Prahran, Melbourne, Victoria. *Hon. Loc. Sec.*

1873 FINEGAN, JAMES HERBERT, M.D., Obstetric Surgeon to, and Lecturer on Midwifery at, the Liverpool Lying-in Hospital; 48, Rodney street, Liverpool.

1870 FISHER, JOHN MOORE, M.D., 2, Balmoral terrace, Anlaby road, Hull.

1868 FLETCHER, EDWARD, Lygon street, Carlton, Melbourne, Victoria.

1878 FLINT, ARTHUR, L.R.C.P., Westgate-on-Sea, Isle of Thanet.

1877* FONMARTIN, HENRY DE, M.D., Knaphill, Woking, Surrey.

1877* FORD, JAMES, M.D., Eltham, Kent.

1865 FOWLER, JAMES, F.S.A., Hon. Surgeon to the Clayton Hospital and Wakefield General Dispensary; 13, South Parade, Wakefield. *Council*, 1872-4. *Hon. Loc. Sec.*

1866 FOX, CORNELIUS BENJAMIN, M.D., Highfield Road, Ilfracombe.

1862 FRAIN, JOSEPH, M.D., Hon. Surgeon to the South Shields Dispensary; Frederick street, South Shields.

1875 FRASER, ANGUS, M.D., Physician and Lecturer on Clinical Medicine to the Aberdeen Royal Infirmary; 232, Union street, Aberdeen.

1867 FREEMAN, HENRY W., 24, Circus, Bath.

1881 FRODSHAM, JOHN MILL, M.D., Denham House, Upper Streatham.

1880 FRY, JOHN BLOUNT, Swindon, Wiltshire.

1867 FULLER, CHARLES C., 33, Albany street, Regent's park, N.W.

1874* GALABIN, ALFRED LEWIS, M.A., M.D., Assistant Obstetric Physician to, and Joint Lecturer on Midwifery at, Guy's Hospital; 14, St. Thomas's street, Southwark, S.E. *Council*, 1876-78. *Hon. Lib.* 1879. *Hon. Sec.* 1880-2.

Elected

1863 GALTON, JOHN H., M.D., Woodside road, Upper Norwood, S.E. *Council*, 1874-6.

1881 GANDY, WILLIAM, Hill Top, Gipsy hill, S.E.

1879 GARDNER, JOHN TWINAME, 6, Hillsboro' terrace, Ilfracombe.

1872 GARDNER, W., M.A., M.D., 551, St. Joseph street, Montreal, Canada.

1863 GARMAN, HENRY VINCENT, Kent House, 6, Bow road, E.

1876 GARNER, JOHN, 52, New Hall street, Birmingham.

1879 GARSTANG, THOMAS W. HARROPP, Oakleigh, Dobcross, near Manchester.

1873 GARTON, WILLIAM, M.B., F.R.C.S., Hardshaw street, St. Helen's, Lancashire.

1859 GASKOIN, GEORGE, 7, Westbourne park, W. *Council*, 1870-72.

1875 GAWITH, J. JACKSON, 23, Westbourne park terrace, W.

1877 GELL, THOMAS SILVESTER, M.D., St. John's Lodge, Kensal green, W.

1859 GERVIS, HENRY, M.D., F.R.C.P., Obstetric Physician to, and Lecturer upon Obstetric Medicine at, St. Thomas's Hospital; Examiner in Obstetric Medicine at the University of London; 40, Harley street, Cavendish square. *Council*, 1864-66. *Hon. Sec.* 1867-70. *Vice-Pres.* 1871-3. *Treas.* 1878-81.

1866 GERVIS, FREDERICK HEUDEBOURCK, 1, Fellows road, Haverstock hill, N.W. *Council*, 1877-9.

1875 GIBBINGS, ALFRED THOMAS, M.D., 93, Richmond road, Dalston, N.E.

1874 GIBSON, JAMES EDWARD, Hillside, West Cowes, Isle of Wight.

1866 GIDDINGS, WILLIAM KITTO, L.R.C.P. Ed., Shaftesbury House, Calverley, near Leeds, Yorkshire.

1877 GIFFARD, DOUGLAS WILLIAM, 44, Old Steyne, Brighton.

1875 GILES, PETER BROOME, L.R.C.P. Ed., The Quinta, Brobury, Hereford.

1869 GILL, WILLIAM, L.R.C.P. Lond., 11, Russell square, W.C.

Elected

1867 GITTINS, JOHN, L.R.C.P. Ed., St. Olave's Union, Parish street, Southwark, 134, Tooley street, S.E.

1871 GODDARD, EUGENE, L.R.C.P. Lond., North Lynne, Highbury New Park, N.

1876 GODFRAY, ALFRED CHARLES, M.B., 43, La Motte street, Jersey.

1877 GODSON, CHARLES, F.R.C.S., 1, Astwood road, Cromwell road, South Kensington, S.W.

1871 GODSON, CLEMENT, M.D., C.M., Consulting Physician to the City of London Lying-in Hospital; Assistant Physician-Accoucheur to St. Bartholomew's Hospital; 9, Grosvenor street, W. *Council*, 1876-77. *Hon. Sec.* 1878-81. *Vice-Pres.* 1882.

1868 GODWIN, ASHTON, M.D., 28, Brompton crescent, Brompton, S.W.

1873 GOLDSMITH, JOHN, M.D., Highworth House, Worthing, Sussex.

1873 GOODCHILD, NATHANIEL, L.R.C.P. Ed., 9, Highgate road, N.W.

1869 GOSS, TREGENNA BIDDULPH, 36, The Paragon, Bath.

1875 GRAY, JAMES, M.D., 15, Newton terrace, Glasgow.

1874 GREENE, WILLIAM THOMAS, M.D., Moira House, Peckham rye, S.E. *Council*, 1880.

1863 GRIFFITH, G. DE GORREQUER, Physician to the Hospital for Women and Children, Pimlico; Physician-Accoucheur to St. Saviour's Maternity; 9, Lupus street, St. George's square, S.W.

1869 GRIFFITH, JOHN T., M.D., Talfourd House, Camberwell, S.E.

1879 GRIFFITH, WALTER SPENCER ANDERSON, F.R.C.S., Assistant Demonstrator of Anatomy, St. Bartholomew's Hospital; 64, Guilford street, Russell square, W.C.

1880 GRIFFITHS, GRIFFITH, Brynedyn, Pontardawe, Swansea Valley.

1870 GRIGG, WILLIAM CHAPMAN, M.D., Physician to the Inpatients, Queen Charlotte's Lying-in Hospital; Assistant Obstetric Physician to the Westminster Hospital; Assistant-Physician to the Victoria Hospital for Children; 6, Curzon street, Mayfair. *Council*, 1875-77.

Elected

O.F. GRIMSDALE, THOS. F., L.R.C.P. Ed., Consulting Surgeon to the Lying-in Hospital, and late Lecturer on Diseases of Children, &c., at the Royal Infirmary School of Medicine; 29, Rodney street, Liverpool. *Council*, 1861-62. *Vice-Pres.* 1875-76.

1880 GROGONO, WALTER ATKINS, 216, High Street, Stratford, E.

1877 GROSHOLZ, FREDERICK HERMANN VARLEY, L.K.Q.C.P.I., Pier House, Aberdovey, Merionethshire, North Wales.

1876 GROTH, ERNST R. G., M.D., 5, Weymouth street, Portland place, W.

1879 GROVE, WILLIAM RICHARD, M.D., St. Ives, Huntingdonshire.

1867 HADAWAY, JAMES, L.R.C.P. Ed., 47B, Welbeck street, Cavendish square, W.

1876 HADDEN, JOHN, M.D., 31, West street, Horncastle, Lincolnshire.

1881 HAIR, JAMES, M.D., Westgate, Peterborough.

1859 HALL, FREDERICK, 1, Jermyn street, St. James's, S.W.

1871 HALLOWES, FREDERICK B., Redhill, Reigate, Surrey.

1880 HAMES, GEORGE HENRY, F.R.C.S., 7, Coburg place, Kensington gardens, W.

1880 HAMILTON, THOMAS, M.D., 30, Northampton park, Canonbury.

1874 HANNAN, FRANCIS JOHN, M.B., Avonside, Downton, Wilts.

1860 HARDEY, KEY, Surgeon to the West City Dispensary; 4, Wardrobe place, Doctors' Commons, E.C.

1872 HARDING, WILLIAM, F.R.C.S., 4, Percy street, Bedford square, W.C.

1877 HARPER, GERALD S., 5, Hertford street, May Fair, W.

O.F. HARPER, PHILIP H., F.R.C.S., 30, Cambridge street, Hyde park, W.

1878 HARRIES, THOMAS DAVIES, F.R.C.S., 36, North Parade, Aberystwith, Cardiganshire.

O.F. HARRINSON, ISAAC, F.R.C.S., Castle street, Reading, Berks. *Council*, 1862-65. *Hon. Loc. Sec.*

1862 HARRIS, CHARLES, M.D., Northiam, Ashford, Kent.

Elected

1872 Harris, Henry, M.D., F.R.C.S., Trengweath place, Redruth Cornwall.

1867 Harris, William H., M.D., Professor of Midwifery in the Madras Medical College, and Superintendent of the Lying-in Hospital, Madras; 78, Oxford gardens, W. [agent: Mr. H. K. Lewis, Gower street].

1861 Harris, William John, 26, Marine Parade, Worthing. *Hon. Loc. Sec.*

1880 Harrison, Richard Charlton, 4, The Terrace, St. Mary's vale, Chatham.

1879 Harvey, George, L.R.C.P. Ed., Wirksworth, Derbyshire.

1880 Harvey, John Stephenson, 26, Rue Wissocq, Boulogne-sur-Mer, France.

1865 Harvey, Robert, M.D., 52, Chowringhee, Calcutta. [Per Messrs. Cochran and Anderson, 152, Union street, Aberdeen.] *Hon. Loc. Sec.*

1873 Hatherly, Henry Reginald, L.R.C.P. Ed., Wellington street, Park side, Nottingham.

1865 Hayes, Hawkesley Roche, Basingstoke, Hants.

1873 Hayes, Thomas Crawford, M.D., Assistant Obstetric Physician to King's College Hospital; 17, Clarges street, Piccadilly, W. *Council*, 1876-78.

1880 Headley, Walter Balls, M.D., 190, Collins street East, Melbourne, Victoria.

1880 Heath, William Lenton, M.B., St. Bartholomew's Hospital, E.C.

1867 Hembrough, John William, Ivy cottage, Waltham, Grimsby.

1870 Henderson, Alexander, 2, Meadow Bank place, Rose vale, Partick, Glasgow.

1878 Henry, Louis, M.D., Melbourne, Victoria, Australia [per J. Kilpatrick, Esq., 2, Northampton Square, Clerkenwell, E.C.].

1881 Hepburn, William Alex., Rosslyn House, Coxhoe, Co. Durham.

Elected

1876 HERMAN, GEORGE ERNEST, M.B., Assistant Obstetric Physician to the London Hospital, 7, West street, Finsbury circus, E.C. *Council*, 1878-79. *Hon. Lib.* 1880-1. *Hon. Sec.* 1882.

O.F. HEWITT, GRAILY, M.D., F.R.C.P., Professor of Midwifery in University College, London, and Obstetric Physician to University College Hospital; 36, Berkeley square, W. *Hon. Sec.* 1859-64. *Treas.* 1865-66. *Vice-Pres.* 1867-68. *Pres.* 1869-70.

1867 HICKINBOTHAM, JAMES, M.D., Physician to the Birmingham and Midland Hospital for Women; 26, Broad street, Birmingham.

1876 HICKS, EDWARD JOHN W., M.D., C.M., Port Elliot, South Australia.

1860 HICKS, JOHN BRAXTON, M.D., F.R.C.P., F.R.S., Physician-Accoucheur to, and Lecturer on Midwifery and the Diseases of Women and Children at, Guy's Hospital; 24, George street, Hanover square. *Council*, 1861-2, 1869. *Hon. Sec.* 1863-65. *Vice-Pres.* 1866-68. *Treas.* 1870. *Pres.* 1871-2.

1860 HIGGS, THOMAS FREDERIC, L.R.C.P. Ed., Beaconsfield House, Dudley, Worcestershire.

1880 HILL, JAMES, M.D., 1, Berkeley Gardens, Kensington.

1879 HILL, T. WOOD, L.R.C.P. Ed., 96, Earl's court road, West Cromwell road, W.

1872 HILLIARD, ROBERT HARVEY, M.D., Fairmead House, 5, Belgrave terrace, Upper Holloway road, N.

1878 HINTON, JAMES THOMAS, Croydon, Surrey.

1876 HOAR, WILLIAM, Maidstone, Kent.

O.F. HODGES, RICHARD, M.D., F.R.C.S., 25, York place, Baker street, W.

1864 HOFFMEISTER, WILLIAM CARTER, M.D., Surgeon to the Queen in the Isle of Wight; Clifton House, Cowes, Isle of Wight. *Council*, 1877-9.

1875 HOLLINGS, EDWIN, L.R.C.P. Ed., 4, Gordon street, Gordon square, W.C.

1859 HOLMAN, CONSTANTINE, M.D., Barons, Reigate, Surrey. *Council*, 1867-69. *Vice-Pres.* 1870-71.

Elected

1880 HONIBALL, OSCAR DUNSCOMBE, M.D., New Amsterdam, British Guiana.

1864 HOOD, WHARTON PETER, M.D., 65, Upper Berkeley street, Portman square, W.

1881 HOPCROFT, THOMAS, L.R.C.P. Ed., High street, Dorking.

1872 HOPE, WILLIAM, M.D., Physician to Queen Charlotte's Lying-in Hospital; 56, Curzon street, Mayfair, W. *Council*, 1877-9.

1874 HOPKINS, ALFRED BOYD, 180, Shoreditch, E.

1876 HORSMAN, GODFREY CHARLES, 22, King street, Portman square, W.

1864 HOUGHTON, HENRY GEORGE, L.K.Q.C.P. Ireland; 6, Mount street, Grosvenor square, W.

1877 HOWELL, HORACE SYDNEY, M.D, 11, Boundary road, St. John's Wood, N.W.

1879 HOWIE, JAMES MUIR, M.D. Edin., 50, Rodney street, Liverpool.

1879 HUBBARD, THOMAS WELLS, 6, Gordon street, Gordon square, W.C.

1878 HUSBAND, WALTER EDWARD, 56, Bury New Road, Manchester.

1859 HUTCHINSON, JONATHAN, F.R.C.S., Surgeon to the London Hospital; 15, Cavendish square, W. *Council*, 1869-71. *Vice-Pres.* 1881-2.

1861 HUTTON, CHARLES, M.D., Physician to the General Lying-in Hospital; 26, Lowndes street, Belgrave square, S.W.

1877 ILOTT, JAMES JOHN, L.R.C.P. Ed., Resident Medical Officer, Whitechapel Union Infirmary, Baker's row, E.

1879 INKSON, JAMES, M.D., Surgeon-Major, Army Medical Department; care of Mr. J. Taylor, 37, Albert square, Clapham.

1876 IRWIN, JOHN ARTHUR, M.D., M.A., 235, Brunswick street, Manchester.

1864 JACKSON, EDWARD, M.B., Surgeon to the Sheffield Hospital for Women; Fern Bank, Glossop road, Sheffield. *Hon. Loc. Sec.*

1864 JACKSON, ROBERT, M.D., 53, Notting hill square, W.

Elected

1876 JAKINS, ISAAC NEGUS, 32, Osnaburgh street, Regent's park, N.W.

1873 JAKINS, WILLIAM VOSPER, L.R.C.P. Ed., Sturt street, Ballarat, Victoria. [Per Isaac N. Jakins, Esq., 32, Osnaburgh street, Regent's park.]

1872 JALLAND, ROBERT, Horncastle, Lincolnshire.

1878 JAMES, WALTER CULVER, M.D., M.C., 11, Marloes road, Kensington, W.

1877 JAMIESON, PATRICK, M.A., 3, St. Peter's street, Peterhead, Aberdeenshire.

1881 JEFFCOAT, JAMES HENRY, Surgeon Major, Army Medical Department, Fort Pitt, Chatham. *Hon. Loc. Sec.*

1877 JENKS, EDWARD W., M.D., Professor of Medical and Surgical Diseases of Women and of Clinical Gynæcology, Chicago Medical College; 170, State street, Chicago, Illinois, U.S.

1877 JOHNSON, SAMUEL, M.D., 5, Hill street, Stoke-upon-Trent.

1881 JOHNSTON, JOSEPH, M.D., Brigade Surgeon, Army Medical Department; St. John's Wood Barracks, N.W.

1879 JOHNSTON, WM. BEECH, M.D., 157, Jamaica road, Bermondsey, S.E.

1868 JONES, EVAN, Ty-Mawr, Aberdare, Glamorganshire. *Hon. Loc. Sec.*

1878 JONES, H. MACNAUGHTON, M.D., Physician to the Cork Maternity, and County and City of Cork Hospital for Diseases of Women and Children; St. Patrick's place, Cork.

1881 JONES, JAMES ROBERT, M.B., Hospital for Women, Soho square.

1868 JONES, JOHN, 60, King street, Regent street, W.

1874 JONES, JOHN THOMAS, L.K.Q.C.P. I., 179, Brixton road, S.W.

1876 JONES, LESLIE, M.D., C.M., 3, Brighton parade, Blackpool.

1873 JONES, PHILIP W., Silver street, Enfield, Essex.

1873 JONES, THOMAS DERRY, L.R.C.P. Ed., 328, Upper street, Islington, N.

Elected

1868 JORDAN, WILLIAM ROSS, Surgeon to the Birmingham Hospital for Women; Manor House, Moseley, near Birmingham.

1879 JOUBERT, CHARLES HENRY, M.D., General Hospital, Calcutta; care of Messrs. Gray and Co., 21, Canning street, Calcutta.

1878 JUDSON, THOMAS ROBERT, L.R.C.P. Lond., Hayman's Green, West Derby, Liverpool.

1875 JUKES, AUGUSTUS, M.B., St. Catherine's, Ontario.

1878 KANE, NATHANIEL H. K., M.D., Lanherne, Kingston hill, Surrey.

1880 KEBBELL, ALFRED, Flaxton, York.

O.F. KEELE, GEORGE THOMAS, 81, St. Paul's road, Highbury, N.

1874 KEMPSTER, WILLIAM HENRY, L.R.C.P. Ed., Oak House, Bridge road, Battersea.

1879 KER, HUGH RICHARD, L.R.C.P. Ed., Comberton House, Hales-Owen, Birmingham.

1865* KERNOT, GEORGE CHARLES, M.D., 5, Elphinstone road, Hastings, Sussex.

1872 KERR, NORMAN S., M.D., F.L.S., 42, Grove road, Regent's park, N.W.

1877 KERSWILL, GEORGE, Looe, Liskeard, Cornwall.

1877 KERSWILL, JOHN BEDFORD, M.R.C.P. Ed., Fairfield, St. German's, Cornwall.

1878 KHORY, RUSTONJEE NASERWANJEE, M.D. Brussels, L.Med. Bombay, Physician to the Parell Dispensary, Bombay, Lecturer to Native Midwives, Grant Medical College, Bombay. [39, St. James's square, Holland park.]

O.F. KIALLMARK, HENRY WALTER, 5, Pembridge gardens, Bayswater. *Council*, 1879-80.

1860 KINGSFORD, EDWARD, F.R.C.S., Surgeon to the Sunbury Dispensary; Sunbury, Essex.

1862 KIRKPATRICK, JOHN RUTHERFORD, M.B. Dubl., Examiner in Midwifery, Royal College of Surgeons, Ireland; 4, Upper Merrion street, Dublin. *Council*, 1872-4.

Elected

1872* Kisch, Albert, 3, Sutherland gardens, Maida vale, W.

1867 Knaggs, Henry Guard, M.D., 189, Camden road, N.W.

1877 Knight, Charles Frederick, 34, Claremont square, N.

1876 Knott, Charles, M.R.C.P. Ed., Liz Ville, Elm grove, Southsea.

1881 Lacy, Charles Sethward de Lacy, M.B., 5, Ovington square, S.W.

1876 Lanchester, Henry Thomas, M.D., Park House, Park lane, Croydon, Surrey.

1878 Lang, Alex. M., M.B., 41, Warwick road, South Kensington.

1867 Langford, Charles P., 29, Duncan terrace, Islington, N.

O.F. Langmore, John Charles, M.B., F.R.C.S., 20, Oxford terrace, Hyde park, W. *Council*, 1861-64. *Vice-Pres.* 1869-71.

1872 Lattey, James, 23, St. Mary Abbott's terrace, Kensington, W.

1875 Lawrence, Alfred Edward Aust, M.D., Physician-Accoucheur to the Bristol General Hospital; 15, Richmond hill, Clifton, Bristol.

1878 Leachman, Albert Warren, M.D., Fairley, Petersfield, Hants.

1876 Leighton, Walter Henry, M.D., Lowell, Massachusetts, U.S.

1860 Leishman, William, M.D., Physician to the University Lying-in Hospital, Regius Professor of Midwifery in the University of Glasgow; 11, Woodside crescent, Glasgow. *Council*, 1866-68. *Vice-Pres.* 1869-70.

1881 Le Page, John Fisher, L.R.C.P. Ed., Meadowfield House, near Durham.

1874 Lewis, Charles Francis, L.R.C.P. Ed., Bromfield's, Henfield, Sussex.

1877 Lewis, John Riggs Miller, M.D., Deputy-Surgeon General, Woodlands, Queen's road, Norbiton, S.W.

Elected

1875 Liebman, Carlo, M.D. Vienna, Principal Surgeon, Trieste Civil Hospital, Trieste, Austria.

1876 Lilley, George Herbert, M.D., M.R.C.P., Assistant Surgeon H.M.'s Convict Prison, Portland, Dorset.

1873 Lindsay, W. B., M.D., Strathroy, Ontario, Canada.

1874 Lithgow, Robert Alexander Douglas, M.R.C.P. Ed., 34, Cadogan place, S.W.

1880 Lithgow, Thomas G., Farnboro', Hampshire.

1868 Llewellyn, Evan, L.R.C.P. Ed., 9, Mount place, London Hospital, E.

1872* Lock, John Griffith, M.A., Lansdowne House, Tenby.

1859 Lombe, Thomas Robert, M.D., Bemerton, Torquay.

1870 Long, Mark, M.D., Ludlow, Salop.

1878 Lorimer, John Archibald, 33, Castle street, Farnham.

1876 Lovett, Henry Albert, Tasmania.

1862 Lowe, George, F.R.C.S., 5, Horninglow street, Burton-on-Trent, Staffordshire.

1866 Lucey, William Cubitt, M.D., The Elms, Bushhill Park, Enfield.

1873 Lush, William John Henry, F.R.C.P.Ed., Associate of King's College, London; Fyfield House, Andover.

1878* Lycett, John Allan, The "Hollies," Graiseley, Wolverhampton.

1869 Lydall, Wykeham H., L.R.C.P. Ed., 19, Mecklenburgh square, W.C.

1871 McCallum, Duncan Campbell, M.D., Professor of Midwifery and Diseases of Women and Children, McGill University; Physician to the University Lying-in Hospital; and Physician to the Montreal General Hospital; 45, Union avenue, Montreal, Canada.

1878 Macdonald, Albert Angus, M.B., 169, Queen street West, Toronto, Canada.

1879 MacGrath, William Michael, L.K.Q.C.P.I., 32, Colville terrace, Bayswater, W.

1879 Mackeough, George J., M.D., Chatham, Ontario, Canada.

Elected

O.F. MACKINDER, DRAPER, M.D., Consulting-Surgeon to the Gainsborough Dispensary; Gainsborough, Lincolnshire. *Council*, 1871-3.

1879 MACLAURIN, HENRY NORMAND, M.D., 155, Macquarie street, Sydney, New South Wales.

1879 MACNEILAGE, DAVID, L.R.C.P. Ed., 5, Hilda place, Saltburn, Yorkshire. *Hon. Loc. Sec.*

1879 MACSWINNEY, GEORGE HENRY, M.D., Westall House, Brook green, Hammersmith.

1859 MADGE, HENRY M., M.D., 4, Upper Wimpole street, W. *Council*, 1863-65. *Vice-Pres.* 1872-4.

1871 MALINS, EDWARD, M.D., Obstetric Physician to the General Hospital, Birmingham; 8, Old square, Birmingham. *Council*, 1881-2.

1876 MANBY, FREDERICK EDWARD, 10, King street, Wolverhampton.

1876 MANDERS, HORACE, 1, York terrace, York town, Farnborough Station.

1868 MARCH, HENRY COLLEY, M.D., 2, West street, Rochdale.

1860 MARLEY, HENRY FREDERICK, Padstow, Cornwall.

1862 MARRIOTT, ROBERT BUCHANAN, Swaffham, Norfolk.

1880 MARSH, THOMAS CHARLES, 56, Fitzroy street, Fitzroy square, W.

1876 MARSHALL, FRANCIS JOHN, Resident Medical Officer to St. George's Hospital.

1873 MARTIN, HENRY CHARRINGTON, M.B., C.M., 11, Somers place, Hyde park, W.

1875 MASON, JOHN WALLIS, 1, Osnaburgh terrace, Regent's park, W.

1877 MASON, SAMUEL BUTLER, L.R.C.P. Ed., Denham House, 11, Park terrace, Pontypool, Monmouthshire.

1877 MAUNSELL, H. WIDENHAM, A.M., M.D., Pitt and London street, Dunedin, New Zealand.

Elected

1877 MAY, LEWIS JAMES, Bountis Thorne, Seven Sisters road, Finsbury Park, N.

O.F. MEADOWS, ALFRED, M.D., Physician-Accoucheur to, and Lecturer on Midwifery at, St. Mary's Hospital; 27, George street, Hanover square, W. *Council*, 1862-64. *Hon. Sec.* 1865-66. *Hon. Lib.* 1865. *Treas.* 1867-69. *Vice-Pres.* 1874-6.

1875 *MILES, ABIJAH J., M.D., Professor of Diseases of Women and Children in the Cincinnati College of Medicine, Cincinnati, Ohio, U.S.

1871 MILLER, HUGH, M.D., Physician-Accoucheur to the Glasgow Maternity Hospital; 298, Bath crescent, Bath street, Glasgow.

1876 MILLMAN, THOMAS, M.D., Asylum for the Insane, London, Ontario, Canada.

1880 MILLS, ROBERT JAMES, M.B., M.C., All Saints' Green, Norwich.

1876 MILSON, RICHARD HENRY, M.D., 88, Finchley road, South Hampstead, N.W.

1869 MILWARD, JAMES, 27, Charles Street, Cardiff.

1869 MINNS, PEMBROKE R. J. B., M.D., Thetford, Norfolk.

1867 MITCHELL, ROBERT NATHAL, M.D., Chester House, Wickham road, Lewisham High road, S.E.

1873 MONCKTON, MARSHALL, L.F.P.S. Glasg., 20, Melville road, Maidstone.

1868 MOOTHOOSAWMY MOODELLY, P. S., M.D., F.L.S., Native Surgeon, Uncovenanted Service, and Teacher of Midwifery, L. F. Midwifery, Manargoodi, Tanjore District, Madras Presidency.

1877 MOON, FREDERICK, M.B., Bexley house, Greenwich.

1873 MOON, ROBERT HENRY, F.R.C.S., Fern Lodge, Lower Norwood.

1879 MOORE, GEORGE EDWARD, M.B., Maidenhead.

1869 MOORE, JOSEPH, M.D., Haroldean, Thornton Heath, Surrey.

1859 MOORHEAD, JOHN, M.D., Surgeon to the Weymouth Infirmary and Dispensary; Weymouth, Dorset.

Elected

1879 Moullin, James A. Mansell, M.A., M.D., 17, George street, Hanover square, W.

1878 Mowat, George, Longland House, Swansea.

1878 Muir, James C. P., L.R.C.P. Ed., 44, Cornwall road, Westbourne park.

1877 Murphy, James, M.D., Surgeon to the Hospital for Women and Children, Sunderland, and Lecturer on Botany in the University of Durham College of Medicine at Newcastle-upon-Tyne; Holly House, Sunderland. *Hon. Loc. Sec.*

O.F. Murray, Gustavus Charles P., M.D., Obstetric Physician to the Great Northern Hospital; 66, Great Cumberland place, Hyde park, W. *Council*, 1864-65. *Hon. Sec.* 1866-69. *Vice-Pres.* 1870-72. *Treas.* 1873-77.

1877 Murray, J. Jardine, 99, Montpelier road, Brighton.

O.F. Musgrave, Johnson Thomas, L.R.C.P. Ed., Irlam villa, 39, Finchley road, N.W. *Council*, 1859-60.

1880 Nall, Samuel, Casualty Physician, St. Bartholomew's Hospital, E.C.

1863 Nason, John James, M.B. Lond., 11, Bridge street, Stratford-on-Avon.

1859 Neal, James, M.D., late Hon. Surgeon to the Lying-in Hospital, Birmingham; Barcelona House, Sandown, Isle of Wight.

1866 Neild, James Edward, M.D., Lecturer on Forensic Medicine, Melbourne University; 166, Collins street east, Melbourne.

1876 Nesbitt, Dawson, M.D., 34, Cambridge place, Hyde Park, W.

1881 Netherclift, William Henry, Resident Medical Superintendent, Chelsea Infirmary, Cale street, S.W.

1876 Newham, James, 16, Princes street, Cavendish square, W.

1859 Newman, William, M.D., Surgeon to the Stamford and Rutland Infirmary; Barn Hill House, Stamford, Lincolnshire. *Council*, 1873-75. *Vice-Pres.* 1876-77.

1873 Nicholson, Arthur, M.B. Lond., 98, Montpellier road, Brighton.

Elected

1879 NICHOLSON, EMILIUS ROWLEY, M.D., 89, Camden road, N.W.

1876 NIX, EDWARD JAMES, M.D., 143, Great Portland street, W.

1876 OAKES, CHARLES, M.B. and C.M., The Parade, Leamington.

1880 OAKLEY, JOHN, Holly House, Wood's End, Halifax, Yorkshire.

1868 OATES, PARKINSON, M.D., 164, Cambridge street, Eccleston square, S.W.

1876 OGSTON, FRANCIS, Junr., M.D., 16, Bridge street, Aberdeen.

O.F. OLDHAM, HENRY, M.D., F.R.C.P., Consulting Obstetric Physician to Guy's Hospital; 4, Cavendish place, Cavendish square, W. *Vice-Pres.* 1859. *Council*, 1860, 1865-66. *Treas.* 1861-62. *Pres.* 1863-64. *Trustee.*

1878 O'NEILL, JOHN, M.D., Maldon, Victoria, Australia.

1869 ORD, GEORGE RICE, Streatham hill, Surrey. *Council* 1881.

1880 ORTON, CHARLES, M.R.C.P. Ed., Nelson place, Newcastle-under-Lyme, Staffordshire.

1877 OSTERLOH, PAUL RUDOLPH, M.D. Leipzic; Dresden.

1877 OSTLERE, ROBERT, M.B., C.M., 28, Stoke Newington road, N.

1863 OSWALD, JAMES WADDELL JEFFRIES, M.D., 245, Ken nington road, S.E.

1880 OUTHWAITE, WILLIAM, Herbert House, Denmark Hill, S.E.

1875 OWEN, WILLIAM, 28, Shore road, Hackney, E.

1877 PALMER, MONTAGU H. C., London road, Newbury, Berks.

1877 PARAMORE, RICHARD, 18, Hunter street, Brunswick square, W.C.

1873 PARKER, ROBERT WILLIAM, 8, Old Cavendish street, W.

1867 PARKS, JOHN, The Wylde, Bury, Lancashire.

1873 PARKS, LUTHER, A.M., M.D., 1, Place Duplaa, Pau, Prance. [Agents: Messrs. Baring Brothers & Co., 8, Bishopsgate street within, E.C.]

1872 PARR, GEORGE, M.D., 18, Upper Phillimore place, Kensington, W.

1880 PARSONS, SIDNEY, 78, Kensington park road, W.

Elected

1865* PATERSON, JAMES, M.D., Hayburn Bank, Partick, Glasgow.

1879 PAULI, THEOPHILUS WILLIAM, L.R.C.P. Ed., Luton, Beds.

1874 PAYNE, WILLIAM S. HELE, 87, Queen's Road, Peckham, S.E.

1864 PEARSON, DAVID RITCHIE, M.D., 23, Upper Phillimore place, Kensington, W.

1871 PEDLER, GEORGE HENRY, 6, Trevor terrace, Rutland gate, S.W.

1880 PEDLEY, THOMAS FRANKLIN, Rangoon, India.

1880 PEEL, ROBERT, 120, Collins street east, Melbourne, Victoria.

O.F. PEIRCE, RICHARD KING, Surgeon to the Notting hill and Shepherd's Bush Dispensary, 96, Addison road, Kensington, W. *Council*, 1881.

1881 PENNY, GEORGE TOWN, B.A., Stanley House, Rotherfield street, Islington, N.

1873 PEREZ, DIEGO, M.D., Montevideo, South America.

1881 PERIGAL, ARTHUR, M.D., New Barnet, Herts.

1871 PERRIGO, JAMES, M.D., 163, Bleury street, Montreal, Canada. *Hon. Loc. Sec.*

1879* PESIKAKA, HORMASJI DOSABHAI, 23, Hornby row, Bombay.

1879 PHIBBS, ROBERT FEATHERSTONE, L.R.C.P. Ed., Pelham House, 30, Sutherland gardens, Maida vale, W.

1879 PHILLIPS, GEORGE RICHARD TURNER, 24, Leinster square, Bayswater, W.

1878 PHILPOT, JOSEPH HENRY, M.D., 26, South Eaton place, S.W.

1871 PHILPS, PHILIP GEORGE, 4, Queen's road, Peckham, S.E.

1876 PICARD, P. KIRKPATRICK, M.D., 59, Abbey road, St. John's Wood, N.W.

1874 PIGG, THOMAS, M.D., Physician to the Manchester Southern Hospital for Women and Children; 98, Mosley street, Manchester.

1876 PIGGOT, ALLEN, L.R.C.P. Ed., Bourneville Lodge, Beckenham, Kent.

1866 PILCHER, WILLIAM JOHN, 43, High street, Boston, Lincolnshire.

Elected

1864 PLAYFAIR, W. S., M.D., F.R.C.P., Physician Accoucheur to H.I. & R.H. the Duchess of Edinburgh; Professor of Obstetric Medicine in King's College, and Obstetric Physician to King's College Hospital; 31, George street, Hanover Square, W. *Council*, 1867. *Hon. Librarian*, 1868-9. *Hon. Sec.* 1870-72. *Vice-Pres.*, 1873-5. *Pres.* 1879-80.

1880 POCOCK, FREDERICK ERNEST, M.D., The Limes, St. Mark's road, Notting hill, W.

O.F.* POLLARD, WILLIAM, Surgeon to the Torbay Hospital; Southlands, Torquay, Devon.

1877 POOLE, S. WORDSWORTH, M.D., Dunedin, Sidcup, Kent.

1876 POPE, H. CAMPBELL, M.B. Lond., Broomsgrove Villa, 280, Gold Hawk road, Shepherd's Bush, W.

1864 POTTER, JOHN BAPTISTE, M.D., Obstetric Physician to, and Lecturer on Midwifery and the Diseases of Women at, the Westminster Hospital; 20, George street, Hanover square, W. *Council*, 1872-6. *Hon. Lib.* 1877-8. *Vice-Pres.* 1879-81. *Treas.* 1882.

1875 POWDRELL, JOHN, 160, Euston road, N.W.

1863 POWELL, JOSIAH T., M.D., 347, City road, E.C.

1864 PRICE, WILLIAM NICHOLSON, Lecturer on Midwifery and the Diseases of Women and Children at the Leeds School of Medicine; Mount Pleasant, Leeds. *Council*, 1876-8.

1880 PRICKETT, MARMADUKE, M.D., 43, Albion street, Hyde park.

O.F. PRIESTLEY, WILLIAM O., M.D., F.R.C.P., Consulting Obstetric Physician to King's College Hospital; and Consulting Physician-Accoucheur to the St. Marylebone Infirmary; 17, Hertford street, Mayfair, W. *Council*, 1859-61, 1865-66. *Vice-Pres.* 1867-69. *Pres.* 1875-76.

1876 QUIRKE, JOSEPH, L.R.C.P. Ed., The Oaklands, Hunter's lane, Handsworth, Birmingham.

1879 RAITT, THOMAS, M.D., Hill house, Woolwich, Kent, S.E.

Elected

O.F. RANDALL, JOHN, M.D., Lecturer on Medical Jurisprudence, St. Mary's Hospital Medical School; Medical Officer, St. Marylebone Infirmary; 35, Nottingham place, W. *Council*, 1877.

1861 RASCH, ADOLPHUS A. F., M.D., Physician for Diseases of Women to the German Hospital; Physician to the Training Hospital, Tottenham; 7, South street, Finsbury square, E.C. *Council*, 1871-3.

1878 RAWLINGS, JOHN ADAMS, M.R.C.P. Ed., 4, Northampton terrace, Swansea.

1870 RAY, EDWARD REYNOLDS, Dulwich, Kent, S.E.

1860* RAYNER, JOHN, M.D., Swaledale House, Quadrant road north, Highbury New Park, N.

1859 RAYNES, HENRY, Gringley-on-the-hill, Bawtry, Yorkshire.

1879 READ, THOMAS LAURENCE, 11, Petersham terrace, Queen's gate, S.W.

1874 REES, WILLIAM, Priory House, 129, Queen's crescent, Haverstock hill, N.W.

1879 REEVE, HENRY, 286, Mile End road, and 24, White Horse lane, E.

1879 REID, WILLIAM LOUDON, M.D., 7, Royal crescent, Glasgow.

1879 RENDLE, RICHARD, 113, Queen street, Queensland, Australia.

1875* REY, EUGENIO, M.D., 39, Via Cavour, Turin.

1862 RICHARDS, DAVID, 23, St. George's terrace, Kemp Town, Brighton, Sussex.

1880 RICHARDS, GEORGE, L.R.C.P. Ed., Mervyn Lodge, Ashfields, Ross, Herefordshire.

1862 RICHARDS, S. SMITH C., 36, Bedford square, W.C.

O.F. RICHARDSON, RICHARD, L.R.C.P. Ed., Bryngwy, Rhayader, Radnorshire.

1872 RICHARDSON, WILLIAM L., M.D., A.M., Instructor in Obstetrics in Harvard University; Visiting Physician to the Boston Lying-in Hospital; 76, Boylston street, Boston, Massachusetts, U.S.

1872 RIGDEN, GEORGE, Surgeon to the Canterbury Dispensary; 60, Burgate street, Canterbury.

Elected

1871 RIGDEN, WALTER, 231, Brompton road, S.W. *Council*, 1882.

O.F.* ROBERTS, DAVID LLOYD, M.D., Physician to St. Mary's Hospital, Manchester; 23, St. John's street, Deansgate, Manchester. *Council*, 1868-70, 1880-2. *Vice-Pres.* 1871-2. *Hon. Loc. Sec.*

1867 ROBERTS, DAVID W., M.D., 56, Manchester street, Manchester square, W.

1874 ROBERTSON, WILLIAM BORWICK, M.D., West Dulwich, S.E.

O.F. ROBINSON, THOMAS, M.D., 5, Woburn square, W.C.

1876 ROE, JOHN WITHINGTON, M.D., Ellesmere, Salop.

O.F. ROGERS, WILLIAM RICHARD, M.D., Physician to the Samaritan Free Hospital for Women and Children; Consulting Physician to the Hospital for Women, Vincent square, S.W.; 56, Berners street, Oxford street, W. *Council*, 1870-72.

1874 ROOTS, WILLIAM HENRY, Canonbury House, Kingston-on-Thames.

1860 ROPER, ALFRED GEORGE, 57, North End, Croydon, Surrey. *Council*, 1879. *Hon. Loc. Sec.*

1874 ROPER, ARTHUR, 17, Granville park, Blackheath.

1865 ROPER, GEORGE, M.D., Physician to the Royal Maternity Charity; Physician to the Royal Hospital for Diseases of Children and Women, Waterloo Bridge road; 19, Ovington gardens, S.W. *Council*, 1875-77. *Vice-Pres.* 1879-81.

1859 ROSE, HENRY COOPER, M.D., High street, Hampstead, N.W. *Council*, 1875-77.

1880 ROSS, DAVID PALMER, M.D., Kingston, Jamaica.

1879 ROSS, FREDERICK OGILBY, B.A., M.B., 8, The Terrace, High street, Kensington, W.

O.F. ROUTH, CHARLES HENRY FELIX, M.D., Physician to the Samaritan Free Hospital for Women and Children; 52, Montagu square, W. *Council*, 1859-61. *Vice-Pres.* 1874-6.

Elected

1874 Rowan, Thomas, L.R.C.P. Ed., Hon. Physician to the Lying-in Hospital, Melbourne, Victoria.

1881 Roworth, Alfred Thomas, Gray's, Essex.

1870 Russell, Logan D. H., M.D., 8, Alfred street, Gt. George street, Liverpool.

1866 Saboia, V., M.D., Rio de Janeiro, South America.

1864 Salter, John H., D'Arcy House, Tolleshunt D'Arcy, Kelvedon, Essex.

1875 Salzmann, Frederick William; Senior Surgeon to the Hospital for Women; 18, Montpellier road, Brighton. *Council*, 1880-2. *Hon. Loc. Sec.*

1868* Sams, John Sutton, St. Peter's Lodge, Eltham road, Lee, Kent.

1872 Sangster, Charles, 148, Lambeth road, S.E.

1870 Saul, William, M.D., 4, Charlotte street, Fitzroy square, W.

1863 Savage, Henry, M.D., Consulting Physician to the Samaritan Hospital for Women, Lower Seymour street, Portman square; 14, Bentinck street, W. *Council*, 1871-2.

1872 Savage, Thomas, M.D., Surgeon to the Birmingham and Midland Hospital for Women; 12, Old square, Birmingham. *Council*, 1878-80.

1877 Savory, Charles Tozer, M.D., 1, Douglas road, Canonbury, N.

1879 Schofield, Rt. H. A., M.A., M.B. Oxon. [care of Mr. Dalziel, Inland Mission, Shanghai, China]

O.F. Scott, John, F.R.C.S., 10, Tavistock square, W.C. *Council*, 1868-70. *Vice-Pres.* 1871-3.

1870 Scott, John, M.D., New street, Sandwich.

1876 Scovil, Francis S., 11, Norton road, Hove, Sussex.

1863 Sequeira, Henry Little, 34, Jewry street, Aldgate, E.C., and Waltham Lodge, Tulse hill.

1866 Sequeira, James Scott, 68, Leman street, Goodman's fields, E., and Crescent House, Cassland Crescent, Cassland road, South Hackney.

Elected

1875 SETON, DAVID ELPHINSTONE, M.D., 12, Thurloe place, South Kensington.

1860 SEWELL, CHARLES BRODIE, M.D., 21, Cavendish square, W., and 13, Fenchurch street, E.C. *Council*, 1880-2.

1862 SHARMAN, MALIM, Surgeon to the Birmingham Free Hospital for Sick Children; 18, New Hall street, and Hollington, Bristol road, Birmingham.

O.F. SHARPIN, HENRY WILSON, F.R.C.S., Surgeon to the Bedford General Infirmary, Bedford. *Council*, 1871-3.

1869 SHAW, HENRY SISSMORE, 88, Upgate, Louth, Lincolnshire.

1875 SHELDON, EDWIN MASON, Surgeon to Stanley Hospital; 223, Boundary street, Liverpool.

1867 SHEPHERD, FREDERICK, L.R.C.P. Ed., 33, King Henry's road, Primrose hill, N.W.

1859 SHIPTON, WILLIAM PARKER, Consulting Surgeon to the Devonshire Hospital; Buxton, Derbyshire.

1874 SINCLAIR, ALEXANDER DOULL, M.D., Visiting Physician to the Boston Lying-in Hospital; Member of the Board of Consulting Physicians and Surgeons, Boston City Hospital; 35, Newbury street, Boston, Massachusetts, U.S.

1876 SIRIGNANO, GIOSUE, M.D., 24, Strada Banchi Nuovi, Napoli.

1874 SKINNER, STEPHEN, M.B., Frendale, Clevedon, Somerset.

1879 SLIGHT, GEORGE. M.D., 25, Brewer street, Regent street.

1881 SLOAN, ARCHIBALD, M.B., 56, Buccleugh street, Glasgow.

1876 SLOAN, SAMUEL, M.D., C.M., 4, Newton terrace, Glasgow.

1861 SLYMAN, WILLIAM DANIEL, 26, Caversham road, Kentish Town, N.W. *Council*, 1881.

1859 SMILES, WILLIAM, M.D., Surgeon to the House of Correction, Cold Bath Fields; 44, Bedford square, W.C. *Council*, 1879.

1877 SMITH, ARTHUR LAPTHORN, M.D., 41, Beaver Hall terrace, Montreal, Canada.

Elected

1867 SMITH, HEYWOOD, M.D., Physician to the Hospital for Women, Soho square, and Physician to the British Lying-in Hospital; 18, Harley street, Cavendish square, W. *Council*, 1872-5.

O.F. SMITH, PROTHEROE, M.D., Physician to the Hospital for Women, Soho square; 42, Park street, Grosvenor square, W.

1875 SMITH, RICHARD THOMAS, M.D., Assistant-Physician to the Hospital for Women, Soho square; 53, Haverstock hill, N.W.

1879 SMITH, WM. HUGH MONTGOMERY, L.R.C.P. Ed., 24, London road, West Croydon, Surrey.

1859 SMITH, WILLIAM JOHNSON, M.D., Consulting Physician to the Weymouth Infirmary and Dispensary; Greenhill, Weymouth, Dorset. *Council*, 1869-71.

1878 SMYTH, ALBERT CHARLES BUTLER, L.R.C.P. Ed., 1, Hillside, Crouch Hill, N.

1876 SNELL, EDMUND GEORGE CARRUTHERS, 131, Green street, Victoria park, E.

1869 SPAULL, BARNARD, F.R.C.S., Essex House, 29, Hammersmith road, Hammersmith, W.

1868 SPAULL, BARNARD E., Lynwood House, 47, Hammersmith road.

1876 SPENCER, LIONEL DIXON, M.D., Bengal Army [care of Messrs. Grindlay and Co., 55, Parliament street].

1862 SPRY, G. FREDERICK HUME, Surgeon-Major 2nd Life Guards, Army and Navy Club, S.W.

1876 SPURGIN, HERBERT BRANWHITE, 49, Abington road, Northampton.

1876 SPURRELL, FLAXMAN, L.R.C.P. Ed., Belvedere, Kent.

O.F. SQUIRE, WILLIAM, M.D., M.R.C.P., 6, Orchard street, Portman square, W. *Council*, 1866-68. *Vice-Pres.* 1876-77.

1877 STAINTHORPE, WILLIAM WATERS, M.D., C.M., Wareham, Dorset.

Elected

1877 STEPHENSON, WILLIAM, M.D., Professor of Midwifery, University of Aberdeen; 261, Union Street, Aberdeen. *Council*, 1881-2.

1873 STEWART, JAMES, M.D., 2, Skinner street, Whitby, Yorkshire.

1875* STEWART, WILLIAM, L.R.C.P. Ed., Highfield House, Barnsley, Yorkshire.

1876 STEWART, WILLIAM EDWARD, F.R.C.S. Ed., 16, Harley Street, W.

1879 STILWELL, ROBERT R., M.D., Beckenham, Kent.

1859 STONE, JOSEPH, M.D., 175, Upper Brook street, Manchester.

O.F. STOWERS, NOWELL, 125, Kennington park road, Kennington, S.E.

1866 STRANGE, WILLIAM HEATH, M.D., 2, Belsize avenue, Belsize park, N.W. *Council*, 1882.

1871 STURGES, MONTAGUE J., M.D., Elmstone House, Beckenham, Kent.

1879 SUTCLIFFE, JOHN, 108, Denmark hill, S.E.

1880 SUTHERLAND, CHARLES JAMES, L.R.C.P. Ed., 16, Frederick street, South Shields, Durham.

1862 SUTTON, FIELD FLOWERS, M.D., Balham hill, Clapham, S.W.

1859 SWAYNE, JOSEPH GRIFFITHS, M.D., Physician-Accoucheur to the Bristol General Hospital; Harewood House, 74, Pembroke road, Clifton, Bristol. *Council*, 1860-61, *Vice-Pres.* 1862-64. *Hon. Loc. Sec.*

1879 TAIT, EDWARD W., 54, Highbury park, N.

1871 TAIT, LAWSON, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women; Consulting Surgeon to the West Bromwich Hospital; 7, Great Charles street, Birmingham.

1880 TAKAKI, KANAHEIRO, F.R.C.S., Imperial Naval Hospital, Tokio, Japan. *Hon. Loc. Sec.*

1871 TANNER, JOHN, M.D., F.L.S., Physician for Diseases of Women, to the Farringdon General Dispensary, and Obstetric Physician to the Lying-in Charity, Holborn; 102, Harley street, Cavendish square, W.

Elected

1859 TAPSON, ALFRED JOSEPH, M.B. Lond., 36, Gloucester gardens, Westbourne terrace, W. *Council*, 1862-64.

1863 TAPSON, JOSEPH ALFRED, Surgeon to the Clapham General Dispensary; 83, High street, Clapham, S.W.

1871 TAYLER, FRANCIS T., B.A. Lond., and M.B., Claremont villa, 224, Lewisham high road, S.E.

O.F. TAYLOE, EDWARD, South lodge, Clapham common, S.W. *Council*, 1882.

O.F. TAYLOR, CHARLES, M.D., Pine house, Camberwell green, S.E. *Council*, 1869-71.

1881 TAYLOR, F. PERLEY, F.R.C.S. Ed., Charlotte Town, Prince Edward Island, Canada.

1869 TAYLOR, JOHN, Earl's Colne, Halstead, Essex.

1871 TAYLOR, JOHN W., M.D., Rothsay House, Prince of Wales terrace, Scarborough.

1862 TAYLOR, THOMAS, F.R.C.S., 5, Wellington terrace, Sutton Coldfield, Birmingham. *Council*, 1875-77.

1872 TEMPLE, JAMES ALGERNON, M.D., Professor of Obstetrics, Trinity College; Physician to Toronto General Hospital; Physician Accoucheur to the Burnside Lying-in-Hospital; 191, Simcoe street, Toronto. *Hon. Loc. Sec.*

1862 THANE, GEORGE DANCER, M.D., 15, Montague street, Russell square, W.C. *Council*, 1881.

1880 THOMPSON, HENRY, L.R.C.P. Lond., Assistant Surgeon, Hull General Infirmary, 16, Albion street, Hull.

1870 THOMPSON, JOHN ASHBURTON, M.D. (travelling). *Council*, 1877-8.

1867 THOMPSON, JOSEPH, L.R.C.P. Lond., 24A, Regent street, Nottingham.

1878 THOMSON, DAVID, M.D., 17, Market hill, Luton, Bedfordshire.

1880 THOMSON, JOHN ANSTRUTHER MULVILLE, Bridge House, Newport, Shropshire.

1874 THOMSON, WILLIAM SINCLAIR, M.D., 40, Ladbroke grove, Kensington park gardens, W.

Elected

1878 THOMSON, WILLIAM ARNOLD, F.R.C.S.I., The Limes, Ampthill, Beds.

1867 THORBURN, JOHN, M.D., M.R.C.P., Professor of Obstetric Medicine, Owen's College, Manchester; 62, King street, Manchester. *Council*, 1876-78. *Vice. Pres.* 1881-2.

1860 THORNE, GEORGE LEWORTHY, M.B., Lenham, near Maidstone, Kent.

1879 THORNTON, J. KNOWSLEY, M.B., C.M., Surgeon to the Samaritan Free Hospital for Women and Children, 22, Portman street, Portman square. *Council*, 1882.

1867 THORNTON, WILLIAM HENRY, Surgeon to the Royal National Hospital for Scrofula; Berkeley Lodge, Margate.

1874 TICEHURST, AUGUSTUS ROWLAND, Silchester House, Pevensey road, St. Leonard's-on-Sea.

1873 TICEHURST, CHARLES SAGE, Petersfield, Hants.

1860 TIFFEN, ROBERT, M.D., Wigton, Cumberland.

1866 TILLEY, SAMUEL, The Cedars, Cranford, Middlesex.

O.F. TILT, EDWARD JOHN, M.D., Consulting Physician-Accoucheur to the Farringdon General Dispensary; 27, Seymour street, Portman square, W. *Council*, 1867-68. *Vice-Pres.* 1869-70. *Treas.* 1871-2. *Pres.* 1873-4.

1879 TIVY, WILLIAM JAMES, F.R.C.S. Ed., 1, Tottenham place, Clifton, Bristol.

1872 TOLOTSCHINOFF, N., M.D., Kieff, Russia [*per* M. N. Orloff, 13, Cambridge terrace, Walham green, S.W.].

1869 TOMKINS, CHARLES P., L.K.Q.C.P.I., Beddington park, Croydon.

1870 TOWNE, ALEXANDER, 364, Kingsland road, N.E.

1873 TRESTRAIL, HENRY ERNEST, F.R.C.S., M.R.C.P. Ed., Walmer House, Victoria road, Aldershot.

1872 TUCHMANN, MARO, M.D., 148, Adelaide road, Haverstock hill, N.W.

1865 TURNER, JOHN SIDNEY, Surgeon to the Anerley Dispensary; Stanton House, Anerley road, Upper Norwood, Surrey.

Elected

1881 TUTHILL, PHINEAS BARRETT, M.D., Fort Pitt, Chatham.

1861 TWEED, JOHN JAMES, Junr., F.R.C.S., 14, Upper Brook street, W.

1874 UNDERHILL, THOMAS, M.D., Summerfield, West Bromwich, Staffordshire.

1874 VENN, ALBERT JOHN, M.D., Obstetric Physician, Metropolitan Free Hospital; Assistant Physician, Victoria Hospital for Sick Children; 8, Upper Brook street, Grosvenor square, W.

1880 VERDON, WALTER, F.R.C.S., 410, Brixton road, S.W.

1873 VERLEY, REGINALD LOUIS, F.R.C.P. Ed., 88, Gower street, W.C.

1879 WADE, GEORGE HERBERT, Ivy Lodge, Chislehurst, Kent.

1864 WAHLTUCH, ADOLPHE, M.D., 8, Acomb street, Greenheys, Manchester.

1860 WALES, THOMAS GARNEYS, Downham Market, Norfolk.

1877 WALKER, GEORGE, L.R.C.P., M.R.C.S., 12, Lingfield road, Wimbledon.

1866 WALKER, THOMAS JAMES, M.D., Surgeon to the General Infirmary, Peterborough; 18, Westgate, Peterborough. *Hon. Loc. Sec. Council*, 1878-80.

1873 WALKER, THOMAS OSBORNE, Crick, near Rugby, Northamptonshire.

1870 WALLACE, FREDERICK, 96, Cazenove road, Upper Clapton, N. *Council*, 1880-2.

1872 WALLACE, JOHN, M.D., Assistant-Physician to the Liverpool Lying-in Hospital; 1, Gambier terrace, Liverpool. *Hon. Loc. Sec.*

1879* WALTER, WILLIAM, M.A., M.D., Surgeon to St. Mary's Hospital, and the Manchester and Salford Lying-in Hospital; 20, St. John street, Manchester.

1867 WALTERS, JAMES HOPKINS, 43, Castle street, Reading, Berks.

1873 WALTERS, JOHN, M.B., Church street, Reigate, Surrey.

O.F. WANE, DANIEL, M.D., 20, Grafton street, Bond street, W.

Elected

1859 WARDEN, CHARLES, M.D., Hon. Surgeon to the Birmingham Lying-in Hospital; 39, Temple street, Birmingham.

1862 WATKINS, CHARLES STEWART, 16, King William street, Strand, W.C.

1873 WAY, JOHN, M.D., 4, Eaton square, S.W.

1879 WEATHERLY, LIONEL ALEX., M.D., C.M. Aberd., Portishead, Somersetshire.

1867 WEBB, FRED. E., 113, Maida vale, W.

O.F. WEBB, HENRY SPEAKMAN, Welwyn, Herts.

1872 WEBSTER, THOMAS, Malvern House, Redland, near Bristol.

1876 WEIR, ARCHIBALD, M.D., St. Mungho's, Great Malvern.

1867 WELLER, GEORGE, The Mall, Wanstead, Essex.

1876 WELLS, FRANK, M.D., late Professor of Obstetrics and the Diseases of Women and Children in the Cleveland Medical School; 12, West Cedar street, Boston, Massachusetts.

1874 WELLS, HARRY, M.D., H.B.M. Vice-Consul, Gualeguaychu, Entre Rios, Argentine Confederation.

O.F. WELLS, T. SPENCER, F.R.C.S., Surgeon in Ordinary to H.M.'s Household; Consulting Surgeon to the Samaritan Free Hospital for Women and Children; 3, Upper Grosvenor street, W. *Council*, 1859. *Vice-Pres.* 1868-70. *Trustee.*

1859 WESTMACOTT, JOHN GUISE, M.D., Medical Officer to the Paddington Provident Dispensary; Howley House, 39, Howley place, Paddington, W.

1876 WHARTON, HENRY THORNTON, M.A. Oxford, 39, St. George's road, Kilburn, N.W.

1870 WHEATCROFT, SAMUEL HANSOM, L.R.C.P. Ed., Litchham, Swaffham, Norfolk.

1860 WHEELER, DANIEL, Chelmsford, Essex.

1873 WHITE, FREDERICK BROAD, 15, Maida vale, W.

1860 WHITE, FREDERICK GEORGE, L.R.C.P. Ed., 8, Dix's Field, Exeter.

1877 WIGMORE, WILLIAM, 130, Inverness terrace, Hyde park, W.

Elected

1867 WILBE, RICHARD HAYDOCK, M.D., York Lodge, 21, Finchley road, St. John's Wood, N.W.

1879 WILKIN, JOHN FREDERICK, M.D., Beckenham, Kent.

1876 WILKINSON, JOSEPH CRADOCK.

1871 WILKINSON, WILLIAM HENRY WHITEWAY, L.R.C.P. Ed., 268, Caledonian road, N.

1879 WILLANS, WILLIAM BLUNDELL, F.R.C.P. Ed., Great Hadham, Herts.

1879 WILLETT, CHARLES VERRALL, Brandon, Suffolk.

1861 WILLIAMS, ARTHUR WYNN, M.D., Physician to the Samaritan Free Hospital; 1, Montagu square, W. *Council* 1871.

1864 WILLIAMS, EDWARD, M.D., Holt street House, Wrexham.

1867 WILLIAMS, HENRY LLEWELLYN, M.D., 9, Leonard place Kensington, W.

1872 WILLIAMS, JOHN, M.D., F.R.C.P., Assistant-Obstetric Physician to University College Hospital; 28, Harley street, Cavendish square, W. *Council*, 1875-76. *Hon. Sec.* 1877-9. *Vice-Pres.* 1880-2.

1881 WILLIS, JULIAN, M.R.C.P. Ed., 82, Sutherland gardens, Maida vale, W.

1880 WILLMOTT, JULIUS JOHN EARDLEY, M.D., Melbourne, Australia.

1873 WILSON, JOHN HENRY, L.K.Q.C.P. Ireland, Obstetric Physician to the Ladies' Charity and Lying-in Hospital; Kensington Lodge, Kensington, Liverpool.

1860 WILSON, ROBERT JAMES, F.R.C.P. Ed., 7, Warrior square, St. Leonard's-on-Sea, Sussex. *Hon. Loc. Sec. Vice-Pres.* 1878-80.

1866 WILTSHIRE, ALFRED, M.D., F.R.C.P., Joint Lecturer on Midwifery at, and Assistant-Obstetric Physician to, St. Mary's Hospital, and Physician for the Diseases of Women to the West London Hospital; 57, Wimpole street, Cavendish square, W. *Council*, 1870. *Hon. Lib.* 1871-3. *Hon. Sec.* 1874-6. *Vice-Pres.* 1877-9.

1877 WINTLE, HENRY, M.B., 12, Park road villas, Forest hill, S.E.

Elected

1880 WOODWARD, G. P. M., M.D., Clarendon House, Norwood road, Tulse hill.

O.F. WORSHIP, J. LUCAS, Manor House, Riverhead, Sevenoaks, Kent. *Council*, 1875-77.

1881 WORTHINGTON, GEORGE FINCH JENNINGS, Sidcup, Chislehurst.

1876 WORTS, EDWIN, 6, Trinity street, Colchester.

1871 YARROW, GEORGE EUGENE, M.D., 87, Old street, E.C. *Council*, 1881-2.

1870 YEATES, GEORGE, M.D., Grove road, Walthamstow, Essex.

1874 YOUNG, DAVID, M.D., 13, Via dei Fossi, Florence, Italy [care of Mr. Lewis, Gower Street].

1861 YOUNG, WILLIAM BUTLER, 10, Castle street, Reading, Berks.

1869 YULE, JOHN S. C., Castlefield House, 78, Walmsey road, Bury, Lancashire.

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ADVERTISEMENT.

THE SOCIETY is not as a body responsible for the facts and opinions which are advanced in the following papers and communications read, or for those contained in the abstracts of the discussions which have occurred, at the meetings during the Session.

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OBSTETRICAL SOCIETY

OF

LONDON.

SESSION 1881.

JANUARY 12TH, 1881.

WILLIAM S. PLAYFAIR, M.D., F.R.C.P., President, in the Chair.

Present—31 Fellows and 4 visitors.

Books were presented by Dr. Fancourt Barnes, Dr. Ramello Candido, Dr. H. Fritsch, Dr. D. H. Goodwillie, Dr. Leopold Herzig, Drs. A. Hegar and R. Kaltenbach, Dr. Edw. W. Jenks, Dr. E. Henry Kisch, Dr. Francesco Macari, Prof. Carlo Minati, Dr. Paul F. Mundé, Dr. B. F. Schultze, Dr. Alois Valenta and Dr. John Williams; the Clinical Society, the Incorporated Law Society, the Edinburgh Obstetrical Society, and the Medico-Chirurgical Society of Modena.

The following gentlemen were elected Fellows of the Society:—James Hair, M.D. (Peterborough); James Robert Jones, M.B.; John Fisher Le Page, L.R.C.P. Ed. (Durham); William Henry Netherclift, M.R.C.S.; and Alfred Thomas Roworth, M.R.C.S. (Grays, Essex).

EXFOLIATION OF VESICAL MUCOUS MEMBRANE.

By Alban Doran.

We have here before us about eight square inches of the muscular and mucous coats of a female bladder. The muscular coat looks ragged, as usual, and the mucous membrane is of a dirty brown colour, covered with white patches which feel gritty to the touch, for they are deposits of insoluble phosphates. On placing the membrane against a firm surface and pressing a sound against one of these patches, this grittiness will be evident to the touch through that instrument; such is often felt in sounding a diseased bladder, and sometimes taken for the surface of a calculus.

The patient was a married lady, æt. 31, under the care of Mr. Roche Lynch, of Bayswater. She had always been hysterical, and before marriage was subject to difficulty in micturition. In November, 1880, she was delivered of a first child, which was very large, weighing ten pounds. The labour lasted seventeen hours, and finally, after drawing off the urine by means of a catheter, the forceps were applied and the head brought down with considerable difficulty. The perineum was ruptured by the passage of the shoulders, but was stitched up at once. A small quantity of urine passed naturally about seven hours after labour. During the week after delivery it appears that there was great difficulty in systematic use of the catheter, owing to the resistance of the patient herself, and also on account of the state of the perineum. At this period she sometimes did not pass her water for five or six hours. On the tenth day all the symptoms of cystitis appeared, with frequent micturition. The urine was ammoniacal and mixed with blood for a day or two, all power of voluntary contraction of the bladder at length ceased, and uncontrolled incontinence of urine ensued, so that a vesical fistula was suspected. On the twentieth day the nurse

found a slough of large size, which had been discharged not only without pain, but without the patient being even aware of what had occurred. Smaller pieces continued to pass, and three days later Mr. Spencer Wells, who has presented this specimen to the Museum of the College of Surgeons, examined the patient and declared his opinion that the substances passed were sloughs of the mucous membrane of the bladder. Her condition then rapidly improved, and in a few weeks she regained considerable power over her bladder till she at present is conscious of slight spasm in passing urine.

In a memorable discussion at a meeting of this Society in 1861, Mr. Spencer Wells remarked how it could be practically demonstrated, from a specimen he then exhibited and from another shown by himself at the previous meeting, that cystitis and sloughing of the vesical mucous membrane after labour might be due to two distinct causes. One was mechanical injury from the pressure of the child's head or of the forceps during labour; the other cause was retention of urine. In this case the labour was lingering, forceps were used, and there was subsequent retention of urine. Considering the lateness of the commencement of distinct symptoms of cystitis after labour, it may appear at first sight as more probably due to retention than to injury of the bladder during parturition. Yet the difficulty in delivering the head of the fœtus, which was very large, and the fact that Mr. Roche Lynch believes that, from the first, there were always "some obscure symptoms referable to the bladder" must, I believe compel us to attribute the sloughing of the vesical mucous membrane to injury. During her illness the patient was subject to conditions which rendered any deception, by the introduction of membrane from an animal (as in Dr. Barnes' case), impossible as well as improbable.

Dr. Godson referred to a specimen in the Museum of St. Bartholomew's Hospital of a complete cast of the mucous membrane of the bladder of a woman, following cystitis in connection with retroversion of the gravid uterus. Abundance of muscular

fibres were to be found at the back of the exfoliated membrane. The patient was under Dr. Godson's care, and when seen a year or two afterwards had a contracted bladder.

THE COMPARATIVE ANATOMY OF THE LYMPHATICS OF THE UTERUS.

A COMMUNICATION on this subject was made by Dr. George Hoggan, and illustrated by a number of microscopical specimens and camera lucida drawings, being the material accumulated jointly with his wife (Mrs. F. E. Hoggan, M.D.) in the course of a lengthened research.

Special prominence was given to demonstrations of the lymphatics of the uterine mucosa, as all investigators had hitherto failed to discover them, and had finally come to the conclusion that they did not exist there. Examples of these in the sheep, goat, pig, and mare were exhibited, those of the latter animal being specially interesting, on account of the superficial position of the terminal twigs. These lymphatics were divisible into two categories, deep and superficial. A deep layer, formed by a dense plexus of valved vessels spread out like a cactus plant on the attached surface of the mucosa; these pierce that tissue and divide into very many smaller vessels, the superficial category, which pass close to the lining epithelium either as *culs-de-sac*, like the solitary lacteal on a villus, or ramifying as sinuous channels immediately underneath the epithelium. Against these terminal lymphatics the uterine glands lie like so many leeches, there being no tissue intervening between gland and lymphatic walls. Passing to the lymphatics of the uterine muscularis, exception was taken to the term subserous lymphatics, those vessels being both anatomically and physiologically the lymphatics of the longitudinal layer of muscle on its outer surface. They appear merely as small twigs which crop up here and there through the musculature, and after turning over one bundle or lying between two for a short distance,

again pass down through the muscular layer to join the portions of the plexus on the inner surface, which in appearance closely resembles that on the outer surface. In some animals, the mare for example, no lymphatics are ever seen on the serous aspect of the muscle, owing apparently to the fact that many small irregularly placed bundles of smooth muscle fibres (the nerve cords of Lee and Snow Beck) lie between the longitudinal layer and the serous surface. This point was further explained by reference to the true subserous lymphatics in other abdominal organs, and especially by a microscopic specimen of the subserous lymphatics of the ovary, this organ in that respect presenting a strong contrast with the uterine subserosa. On either surface of the circular muscles the lymphatics lie as closely packed lines of dilated valvular sinuses parallel to the muscular bundles and in a condition capable of great elongation or distension of pregnancy without further development. The deep lymphatics of the mucosa are given off from the channels of the inner side of the circular muscular layer. Attention was also directed to the presence of great cell-lined spaces lying like synovial cavities between the mucosa and the muscularis. The specimens were mostly prepared with silver and gold solutions. The causes of errors produced in former investigations by means of the injection method were also explained, and photographs of spurious lymphatics intentionally produced, as well as photographs of the real lymphatics which had been taken direct from the preparations under the microscope by Mr. Francis Fowke, were handed round the hall for inspection and comparison.

Mr. KNOWSLEY THORNTON asked Dr. Hoggan whether he had found any evidence of communication between the uterine lymphatics, and the sac of the peritoneum. Whether he had been able to demonstrate the stomata described by some authorities, and whether he believed in their existence.

Mr. DORAN asked for the opinion of Dr. Hoggan on certain researches made two years since, in Paris, with regard to the lymphatics of the uterus. The conclusions, at variance with *Dc.*

Hoggan's opinions, were that a free subperitoneal uterine plexus of lymphatics existed; it was also stated that the "stomata" marked the site of old endothelial cells in a state of involution —edged out in fact by the younger cells.

DOUBLE OVARIOTOMY.

(Under the care of Dr. LEDIARD, Cumberland Infirmary, Carlisle.)

DR. MATTHEWS DUNCAN exhibited two ovaries removed by Dr. Lediard in a case of double ovariotomy, in which there was suspicion of malignancy. Dr. Lediard had furnished the following report:

"Jane P—, æt. 55, was admitted into the Cumberland Infirmary on August 4th, 1880, under the care of Dr. Lochie, and was transferred, for surgical treatment, to me. Patient is a widow, has had one child; she is a small, spare woman, with sallow complexion, but with no marked cachexia. She states that several months before admission there was occasional pain in the left iliac region. Five weeks before her admission her friends noticed that her abdomen was large, and she then began to fail in strength. Three weeks before admission her feet and legs began to swell, and her abdomen became gradually larger, and when first seen her girth was thirty and a quarter inches. On the left side of the abdomen a movable tumour was felt springing from the left iliac region, floating almost in ascitic fluid.

"The uterus was depressed and jammed back against the rectum, and the cavity of the pelvis was filled up by a rather hard substance. The sound passed for one inch only. Tapping the peritoneum was performed on four occasions, the largest quantity obtained at one time being eighteen and a half pints, when it was found that there was a tumour on the right side of the abdomen, much deeper seated than that on the left; this tumour was also lobulated, somewhat hard, and moved with the uterus.

"On December 24th the girth was thirty-five inches. Ovariotomy was performed upon each side. After the ascitic fluid had escaped, the left tumour was found to have no adhesions, and a very short pedicle, which was ligatured with carbolised silk, dropped in.

"The right tumour was adherent all round to uterus, bladder, and pelvic cavity; these adhesions gave way readily enough; the short pedicle was also ligatured with silk, and the incision, three inches in length, was then stitched up, the operation having been conducted with strict antiseptic precautions. The patient is now, January 11th, 1881, convalescent.

"Sections of the left ovary cut by Dr. Veitch, house-surgeon, show the structure usually met with in these cases.

"The tumours are multilocular cysts with a very small preponderance of fluid contents. The left ovary weighed twelve and a quarter ounces, and the right one fifteen and a half ounces.

"The ascites was really the chief feature in the clinical history of this case, for, although the left tumour could always be felt, yet the right one only came into reach when the peritoneal cavity was drained.

"The fixation of the uterus and the somewhat hard mass filling up the pelvis and displacing the uterus, seemed to point to there being a malignant element in the case, but this happily a section of one tumour has disproved.

"Koberle has had 12 per cent. of his cases double operations, Keith 5 per cent., Wells 6 per cent., and most writers agree that the danger in such is doubled; here, however, the adhesions, though extensive, were not of a serious nature, and not one blood-vessel required ligature save in the pedicles."

Mr. KNOWSLEY THORNTON after seeing the specimens remarked on their similarity to a specimen exhibited by Mr. Doran for Mr. Spencer Wells at the Pathological Society, and called a papilloma of the Fallopian tube. There was in that case also excessive effusion of serum into the peritoneum (ascites), and he thought

a very interesting question was raised by these specimens. Did the fluid gather in the peritoneum as a result of the mechanical irritation caused by the presence of these semi-solid tumours, or was it a secretion from their interior, which escaped through some minute aperture, or through a rupture into the tube, as he believed was the case in Mr. Wells's specimen?

Mr. DORAN contrasted this case of ascites with others where still less ovarian disease existed, as Gusserow and Eberth's case, where there were free papillary growths on the surface of the ovaries, and a case under the care of Dr. Bantock, where the only evidence of any source of peritoneal irritation was chronic inflammation of both ovaries. After oöphorectomy the distension disappeared.

A SYPHON DOUCHE.

DR. EDIS exhibited a simple form of syphon douche for the employment of hot water vaginal injections. It consisted of a piece of india-rubber tubing six feet in length, half an inch in diameter, with a piece of leaden tube about two inches from one end so as to ensure it sinking in the water, and a vaginal nozzle the other. A second piece of lead tubing was placed about fifteen inches from the other, so as to prevent the india-rubber tube becoming bent at the part where it emerged from the spout of the can. To this an elastic band was attached to secure the tube to the spout and prevent its falling out of the can. An ordinary clip to compress the tube, or a small tap inserted in the length of the tubing, served to shut off the water when requisite. A bath can, capable of holding two to three gallons, is then filled with warm water, the temperature being regulated as desired from 90° F. to 110° or 115° F.

The end of the tube with the leaden tubing is then passed from outside through the spout of the can, the remainder of the tube being pushed in, so as to allow it to become filled with water as far as the vaginal nozzle. On now compressing the tube and withdrawing it from the can all but the final eighteen inches or so, taking care to

hold the nozzle below the level of the water in the can and removing the pressure, the syphon action is produced and the water flows freely. The clip is then applied to the tubing so as to prevent the water flowing until wanted, or the tap is turned, as the case may be, and the douche is ready for use.

The can is then placed upon a chest of drawers or other article of furniture close to the bed, so as to be some two or three feet above the level of the bed, and the tube put within reach. A pillow is then placed at the edge of the bed so as to raise the hips, a tub, footpan, or other receptacle for the water, on the floor beneath, and two chairs just in front. A piece of mackintosh is employed to cover the pillow, the lower portion hanging down into the vessel beneath so as to prevent the bed from being wetted, to convey the water away as it flows from the vagina. The patient now lies on her back with her hips resting on the pillow close to the edge of the bed, and her feet on the two chairs. The knees are covered with a couple of shawls or small blankets, and the body also protected from cold. The nozzle at the end of the tube being now gently inserted into the vagina and directed backwards behind the cervix into the posterior *cul-de-sac* the clip is removed or the tap turned, and the water allowed to flow into the vagina.

A tube such as here described allows a gallon of water to flow through it in about four minutes, so that an ordinary bath can, which holds three gallons, will enable the patient to keep up a continuous supply for from ten to fifteen minutes.

The advantages gained were the simplicity and inexpensiveness of the apparatus, the only requisites being an ordinary bath can such as met with in every well-furnished house, and six feet of tubing. There was no need of having a tap or spiggot inserted in the lower part of the can, no skilled nurse was necessitated, the patient was quite independent.

Emmet states that "a steady stream is never as ser-

viceable as the interrupted current from a Davidson's syringe, the jet acting as a stimulus to excite the blood-vessels to contraction;" but this is open to question. It is the continuous application of warm water that produces the good effect. Besides, it is not every private patient who is in a position to command the services of an experienced nurse morning and evening, nor would many ladies care to ask a servant to perform such a duty, and it is impossible for the patient herself to inject two or three gallons of hot water into her vagina when lying on her back.

INCOMPLETE RUPTURE OF VAGINA, DISCOVERED POST MORTEM. DEATH FROM SEPTICÆMIA.

Dr. Champneys showed the uterus and neighbouring parts of a primipara, æt. 34, who died in St. George's Hospital in consequence of an incomplete rupture of the vagina.

The fœtus apparently died about the end of the sixth month. The patient was admitted at the end of the seventh month for retinitis albuminurica. Labour came on spontaneously the day after admission, and was easily completed in five hours in the first cranial position. The child was apparently of six months' growth, macerated and dropsical, not putrid. No hæmorrhage or unusual symptoms. Temperature rose at the end of the second day, and cystitis supervened with severe pain in the hypogastrium on the third day.

Examination on the seventh day discovered a quantity of clots in the vagina, the lower ones slightly offensive; removed by the fingers. Two patulous cavities felt, one behind the other, separated by a small bridle or cord running more or less transversely, and at first feeling like the partially detached anterior lip of the cervix; but both

cavities were afterwards found to be posterior to the cervix. No bowel or other evidence of rupture into the peritoneal sac discovered. Uterine injections of carbolic acid, one in forty, ordered.

On the eleventh day the breath was noticed to be sweet. Diarrhœa commenced, and continued unchecked by any means till death. The condition of the urine and sight improved, but the abdominal pain continued. No more clots were formed, and the uterus contracted firmly.

Death occurred on the sixteenth day.

Autopsy.—No deposits in any organ. Purulent peritonitis. Cystitis. Under the peritoneum, in front of the last two lumbar vertebræ and promontory of sacrum, was a layer of extravasated blood. Finger in vagina felt the "bridle" described behind cervix uteri. Peritoneum of Douglas's pouch intact. A large abscess in upper and outer part of left broad ligament, extending in direction of round ligament. On removing uterus, vagina, and bladder *en masse*, a round rent was found immediately below the os uteri in the posterior wall of the vagina, about the size of a florin, divided into two by a transverse band, now broken; the edges of the rent consisting of the inner layers of the vagina overhanging. From this situation effused blood can be traced round the rectum to the posterior layer of Douglas's pouch and over the promontory of the sacrum. The rent communicates neither with peritoneum nor rectum. The uterus shows nothing but the usual healthy post-partum appearances.

Remarks.—There was no history of any injury. The labour was easy, the child small and macerated. There were no signs of stenosis of the vagina or cervix, nor any history of such. There was a history of a sudden pain some five weeks before admission (in the sixth month), commencing at the navel and travelling round to the left hypochondrium and back, lasting seven hours, then going off; but this date does not correspond with the recent appearance of the rupture. There seems no reason to attribute the rupture to nutritional impairment due to

the albuminuria. The rupture probably occurred intra-partum, but its cause is obscure. (Cf. Breisky in Pitha and Billroth's 'Handb. der Allgem. u. Spec. Chir.,' Band iv, Lieferung 7, 1879, p. 88 *et seq.*)

Dr. WILTSHIRE said Dr. Champneys' case reminded him of one he had seen in consultation with Dr. Owen Roberts, where also a rupture had taken place spontaneously, the left lower segment of the uterus being ruptured over an extent of several inches. The patient had met with an accident a few days previously, and was rather precipitately delivered, before medical help arrived, of her fourth child. Dr. Roberts subsequently found a rent in the left side of the cervix. Dr. Wiltshire also found this chasm when he examined the patient, and there was also a large effusion of blood on the left side between the layers of the broad ligament. The patient recovered perfectly. Dr. Wiltshire also referred to a case of utero-vaginal laceration already recorded by him in the Society's 'Transactions.'

COMPLETE EXTIRPATION OF THE UTERUS WITH BOTH OVARIES, WEIGHING TEN POUNDS. RECOVERY.

By THOMAS CHAMBERS,

SENIOR PHYSICIAN TO THE CHELSEA HOSPITAL FOR WOMEN, AND CONSULTING PHYSICIAN TO WESTMINSTER MATERNITY, ETC.

THE object of this short paper is not to enter into or discuss the complex question of uterine fibroids, but simply to record a typical case without comment, leaving the question open for discussion, if the Fellows of the Society should be of opinion that any practical result can be attained.

Jane S—, æt. 43, single, was admitted under my care May 24th, 1880. Up to ten years ago she had always enjoyed good health, had menstruated with regularity and without pain from the age of fourteen. In 1870 she noticed for the first time a lump in her right groin, as

large as a full-sized egg, but as it did not in any way pain or annoy her, no notice was taken of it. It continued, however, to grow slowly for about five years, by which time it had reached the median line, its upper margin forming a well-marked prominence above the pubis. Up to this time no unpleasant symptoms had presented themselves, but now her periods, which had hitherto been both regular and painless, became excessive, both as to quantity and duration, as well as painful. She consulted a doctor, who prescribed for her unsuccessfully.

As time went on her suffering and blood-loss greatly increased, so that her health began to suffer considerably. For two years she attended different institutions, but with little real benefit. She became dim-sighted, had a yellowish haze always before her eyes, with a constant floating about of black spots.

In April, 1876, she was admitted into a London hospital, where she remained until the following June. No local treatment was adopted, and she was discharged with but little amelioration of her most urgent symptoms —excessive pain and hæmorrhage.

From this time to January, 1880, she continued to take tonics, cod-liver oil, &c., but was not under any special treatment. It was at this period she first came under my notice. She declined to come in, and was treated as an out-patient about five months, during which period she took a considerable amount of physic, including those remedies most renowned in the treatment of uterine fibroids, but without any material benefit. She became so thin and weak that she could no longer continue to attend as an out-patient and, as she was entirely dependent upon her friends for her support, she determined to come in, prepared to submit to any kind of treatment that might be deemed desirable. This course, however, was not adopted without many and serious misgivings on her part as to the result. When admitted, she was emaciated to a remarkable degree—a mere shadow. This extreme leanness, together with the mud-yellow tint of her skin and the

median line. The peritoneum was much thickened and more hardened than is usually observed in abdominal sections; when opened, about half a pint of ascitic fluid escaped. On introducing the hand the tumour was ascertained to be the uterus, ovoid in form and very elastic, and occupying the whole abdominal cavity, its upper surface being in juxtaposition with the liver and stomach; no adhesions. Free pulsation of what appeared to be arteries of great size was very distinct.

As the tumour could not be reduced by puncture, the incision was extended to eleven inches, and the tumour lifted out of its bed.

The vessels travelling the broad ligaments were numerous and of large size; the cervix uteri was flattened, and of remarkable density. On the left side a large arterial trunk could be felt coursing its way up to the tumour. The broad ligament on either side, with its vessels, were carefully separated from the side of the cervix, transfixed, and tied with a twisted silk ligature. This being accomplished, my strong parallel clamp was placed between the ligatures below and the tumour above, and tightly screwed home. The abdominal opening was now carefully protected, and the uterus separated at the junction with the cervix. For a few minutes after the separation there was no hæmorrhage, and it was supposed that the whole of the vessels communicating with the tumour had been secured in the ligatures embracing the broad ligaments, but presently a large stream of arterial blood shot up from the artery which had previously been noticed coursing up the left side of the cervix; it was at once secured and ligatured. This momentary loss represented all the arterial blood lost at the operation.

After the bleeding artery had been secured, the cervix uteri was transfixed by a double ligature of twisted silk (No. 35), care being taken that the two ligatures should cross; they each embraced a broad ligament below the ligatures specially applied to these structures as an additional security against hæmorrhage. When both were in

position and ready to be tightened the clamp was removed. After waiting a few minutes they were finally secured, cut off short, and the stump quietly replaced in the cavity, which was carefully sponged out, the sides of the wound brought together and secured by twenty silk sutures; it was necessary to place them close together in order to restrain a general oozing from the edges of the wound, which had come on after the separation of the tumour. The wound was covered with a strip of lint smeared with vaseline, and the abdomen secured as after ovariotomy. By 6 o'clock the effect of the ether had passed off, and as she felt a good deal of pain in the abdomen a morphia suppository (gr. $\frac{1}{6}$), was put into the bowel, which relieved her considerably. 10 p.m.—The pain was still marked, though much less; no sickness; temp. 100, pulse 96, resp. 24; repeat suppository. The temperature and pulse were recorded by myself twice daily, occasionally three times, for the first fourteen days, and once daily for the next seven days, when there was no longer any necessity for it.

June 23rd (the 21st day).—Appears quite well, with the exception of general weakness due to the emaciated and anæmic condition to which she had been reduced previous to the operation. Abdomen soft and reduced to its natural proportions. Wound firmly cicatrised, the vaginal discharge almost ceased. To be removed to another room. Temp. 99·7, pulse 86. She may fairly be pronounced cured.

Examination of the tumour proved it to be a lobulated white fibroid, the lobular surfaces being held together by loose cellular tissue, which permitted them to move upon each other with facility, thus imparting the idea of obscure fluctuation, which led (with other symptoms) to the error in diagnosing it to be fibro-cystic. This examination clearly indicated what was not so apparent previous to the operation, viz. the excessive vascularity of the uterine walls.

Vessels of great size were travelling in bundles in all

directions—the mouth of one measured half an inch—many vessels between the tumour and the uterine walls were attached to each by a thin stratum of fine cellular tissue. The vessels in the lower zone of the uterus were very numerous and of large size.

The deduction to be drawn from these observations clearly supports the belief that, if any attempt had been made to enucleate, the result would have been disastrous to the patient and sadly disappointing to those having the responsibility of the case.

A retrospect of this case would appear to suggest a few points for consideration, viz.:

1. The length of time a fibroid—even of considerable size—may exist without symptoms. In this case five years.
2. The celerity with which symptoms develop after they have once appeared.
3. The inefficacy of medicines to control such symptoms when brought into operation.
4. The difficulty of forming a correct diagnosis in any given case of fibroid disease of the uterus.
5. The practicability, expediency, and safety of extirpation in cases where other forms of treatment have failed.
6. The comparative simplicity of the operation and its immunity from the hazards of hæmorrhage.
7. The great vascularity of such growths, and the hazards pertaining to enucleation in cases like the one here recorded.

Dr. Heywood Smith remarked that Mr. Thornton used the term hysterectomy as applied not only to removal of the supra-vaginal portion of the uterus but also to cases of fibroid outgrowths only, whereas he considered that term should be limited to amputation of the uterus. Dr. Heywood Smith also considered that the operation of oöphorectomy was a safer proceeding in cases of intra-uterine fibroid, where a patient's life was threatened by flooding and pain than the removal of the uterus, or even in some cases than the removal of sub-peritoneal fibroids.

Dr. Routh said he had, some years back, tabulated a number

of cases of fibro-cystic disease as compared to pure fibroids of the uterus. With regard to the menorrhagia present, to his surprise he had found whereas menorrhagia was very common in fibroids, it was very rare in fibro-cystic disease. This circumstance if confirmed would help the diagnosis.

A CASE OF CHRONIC COMPLETE INVERSION OF THE UTERUS, SUCCESSFULLY TREATED BY SUSTAINED ELASTIC PRESSURE.

By W. R. Rogers, M.D., M.R.C.P.
PHYSICIAN TO THE SAMARITAN HOSPITAL FOR WOMEN AND CHILDREN.

Mrs. S. B—, residing near Newnham, Gloucestershire, æt. 29, had always enjoyed good health, and never had any menstrual troubles. Married at 26. Had a child two years ago, which was born during the absence of her doctor. The birth was followed by great flooding, which has continued more or less ever since; for some months it was irregular and very frequent as well as profuse; the last twelve months it has been regular as to monthly periods, but very profuse likewise, so that she has become very weak, reduced in health and strength, and looks very anæmic. About a month after her confinement her medical attendant made an internal examination, which gave her great pain, but no benefit followed. After a long interval he made another equally unsuccessful attempt to reduce the inversion, which was the cause of these losses. At the end of the second year (April 1879) he advised her to come up to a London hospital for treatment, and then stated the nature of her malady.

After a day's rest in the Samaritan Hospital I made an examination and found a large polypoid mass in the vagina as large as a turkey's egg. I was able to pass my finger round and above it, and felt a ring-like neck encircling it,

but neither finger nor sound could be passed above a line or two through what I felt sure was the neck of the uterus. On passing sound into bladder and finger into rectum these were brought in contact above the neck where the fundus should be in the normal state of the uterus; the tumour in vagina was painful on pressure, bled freely on examination, and by speculum was seen to be covered with oozing points of blood from its pores, and it had all the characters of a mucous membrane. My colleagues, Drs. Routh and Wynn Williams, subsequently examined her and concurred in my view of the case; there was no difficulty in the diagnosis. From previous experience of three similar cases of inversion of the fundus uteri, and from reports of cases brought before the obstetric section of the British Medical Association at Cork, by Drs. Lombe Athill, Robert Barnes, John Wallace, and J. H. Aveling, I decided not to attempt any other plan of treatment than by elastic continued pressure, which, so ably advocated by the late Dr. Tyler Smith, has been frequently successful of late years, especially by the use of the repositor invented by one of our fellows, Dr. J. H. Aveling, to whom I am greatly indebted for the loan of his instruments, and aid in placing it. On the 28th of last April Dr. Aveling's "double-curved repositor" was applied to the tumour without any difficulty, the bands and straps fixed on body and tied by tapes to the elastic rings on the repositor by Dr. Aveling, who gave them the required tension. An opiate suppository was placed *in recto*. This was at 10 a.m. During the day the patient complained of very little pain, and at 9 p.m. the nurse tightened the strings. Patient slept pretty well; water drawn off night and morning. When seen at 10 a.m. the following day by Dr. Aveling and myself she was very comfortable, saying her pain was trifling; there was but little discharge. The strings were again tightened; no suppository used. At 5 p.m. I tightened the strings again, which the patient endured well. She had no sickness, no rigors, no rise of temperature, and had slept well during the night. At 10 a.m.

the next day, forty-eight hours after the first application of the repositor, Dr. Aveling met me again. The patient now told us that at about 2 a.m. she had felt great relief, something had given way, and the strings had become loose. She had slept comfortably. On examination the repositor was found within the uterus, high up, cervix contracted round it.

I found no difficulty in removing the cup. By examination with finger and sound, the fundus had become restored to its natural position, sound entered two and three quarter inches. The uterus was injected with water and iodine, and this was repeated night and morning for several days. She got rapidly well without a bad symptom, and left the hospital on the 8th of May. In this case the repositor had been only applied forty hours when the inversion was overcome, not a bad symptom having occurred to require relaxation of pressure or removal of instrument. Dr. Aveling's double-curved repositor has again been a great success, and I agree with him, "that cases must be very rare in which the obstacles to reinversion of the uterus are so insuperable as to render amputation necessary, and so serious a mutilation warrantable."

Dr. AVELING stated that since he had invented his repositor last year five cases had been successfully treated by it.

DELIVERY IN A CASE OF DOUBLE UTERUS.

By J. MATTHEWS DUNCAN, M.D., F.R.S. Edin.

I LAY this case before the Society because it is one that occurs rarely, and still more rarely is described. The uterus was not altogether double, but, having the outward

appearance, or rather feeling of oneness, possessed two cavities separated by a thick wall running in a sagittal direction, and extending from the fundus to the internal os.

C. E—, enjoying fair general health, had had eight children naturally, no miscarriage. This, her ninth pregnancy, was healthy, and her ninth child, a well-developed boy, was born a fortnight before the computed time. The labour was natural and easy, the second stage being completed within an hour.

She narrates that, in some previous pregnancies, she had, about the third and fourth months, copious losses of blood, which were regarded as threatened miscarriages, and on account of which she was kept in bed for several weeks at different times. During this ninth pregnancy she had no discharge of blood nor of anything like decidua.

The placenta came easily away, under moderate suprapubic pressure, about ten minutes after the birth of the child. It was, in shape and contour, natural; not presenting such characters as it might have if developed in a uterine sac.* Examining it, I found the amniotic membrane apparently entire, but only a part of the chorion connected with it. The remaining chorion, detached from about a half of the edge of the placenta as it came away, was still *in utero*. The detachment had been easily effected in consequence of the morbid condition of the combined chorion and decidua at this part of the placental edge. It was of a light-yellow colour, not thickened, but indurated and fragile.

The missing chorion was sought for in the vagina and cervix; and, as it was not found, the hand was passed into the genital canal to search for it in the body of the uterus. Doing this I found the two cavities of the uterus. The chorion was found in the right or larger cavity, where the child had been. The left or smaller cavity had, in every respect, except size, the same feeling and behaviour as the right or larger. The left or smaller presented no membrane.

* See my 'Researches in Obstetrics,' p. 444.

The external contour of the uterus was exactly like that of the double uterus represented in Cruveilhier's plate, Livraison 13, Planche 5, fig. 1, the right half of the fundus being, in my case, larger, and rising to a higher level than the left half, the outline of the fundus presenting therefore a sinuosity. Both cavities expanded and contracted simultaneously. When the hand could be passed into the right, some fingers only could be passed into the left. When two fingers could be easily passed into the right, one only could be urged into the left. The cavities were alike in shape, both having a rounded, concave, fundal roof.

The cervix was single, natural, relaxed and loose. The firm septum of the uterine cavities ended, at its upper part, in a smooth, broad-edged end. In the 'Obstetrical Journal' for 1873-74 (vol. I, p. 785) I described a uterus subseptus occurring in a woman who had borne children. In that case the right uterine cavity was the larger and probably the part used in pregnancy; but the wall dividing the two cavities did not reach to the internal os uteri.

The patient, whose case is above recorded, I examined on the twelfth day after delivery, and I was unable to find, by simple digital investigation, or by the bimanual method, anything abnormal or that could suggest the doubleness of the uterus.

CASE OF PREGNANCY WITH DOUBLE UTERUS AND VAGINA.

By J. Braxton Hicks, M.D., F.R.S.,

OBSTETRIC PHYSICIAN AND LECTURER ON OBSTETRICS AT GUY'S HOSPITAL.

Some years since I was asked to see a lady with a tumour in the right inguinal region, and as there were symptoms

indicating pregnancy at the fourth month, I was wanted to determine whether it were a case of extra uterine fœtation.

I found a rather elongated tumour in the left groin, not extending over the median line, but reaching up to the flank. In passing the vulva my finger came in contact with the edge of a firm septum, and it was obvious, after passing the finger upwards on both sides, that an os uteri existed on either side. The uterus on the right side was manifestly pregnant, and, of course, was more developed.

The pregnancy went on to the full term, and she was delivered without difficulty or trouble. Indeed, so little abnormal was the labour, that the medical man who attended her (not the same who met me in consultation) failed to detect the dual condition at the time. Indeed, he was sceptical till I recommended him to examine before he gave up the case. When he did so he found it as I have described.

VERTICAL SEPTUM IN LOWER PART OF VAGINA IMPEDING LABOUR.

By J. Braxton Hicks, M.D., F.R.S.

I was once asked to assist a gentleman attending a case of labour. The head of fœtus was ready to escape, but its exit was impeded by a stout band dividing the lower vagina. I found a stout, firm band extending from urethra to perinæum, stretched over the head and preventing its expulsion. I pushed it to one side and the head passed through at once. On examining afterwards, I found it a vertical septum of firm substance, with broad attachments extending about one and a half inches up the

vagina, and evidently a rudiment of a double vagina. Neither the wife nor husband had noticed its existence.

Dr. MATTHEWS DUNCAN regarded cases of delivery from double uteri as of great interest, and Dr. Hicks's was a fine example. Such deliveries would throw light on many points in the mechanism of pregnancy and labour. He hoped no one would neglect to publish any instance. Cases of delivery when the duplicity was only of the vagina were more frequent and probably less important. He (Dr. Duncan) had, several years ago, published two in his volume of 'Researches in Obstetrics.'

SUPPLEMENT TO A PAPER ON FIBROID TUMOUR COMPLICATING DELIVERY.

By W. S. PLAYFAIR, M.D., F.R.C.P.

THE nineteenth volume of our 'Transactions' contains a paper by me on "Fibroid Tumours of the Uterus Complicating Delivery," in which I have related several cases of this formidable complication of labour occurring in my own practice, in two of which the Cæsarean section would have been inevitable had the obstacle not been overcome by reposition. The difficulties and dangers connected with this kind of case are so great, to say nothing of the anxiety to the medical attendant, that it is a matter of moment to record as many examples as possible for our future guidance.

This will, perhaps, serve as an apology for detailing two more cases which have since occurred to me, both of which are interesting in their way, and serve to illustrate various points in connection with this subject, and which I submit as a supplement to my former paper.

In May, 1878, I was consulted by a young lady, who had not long been married. Within three months after

marriage she had aborted without any known cause. The reason for seeking advice was that she now, and ever since she could remember, suffered from extreme dysmenorrhœa, the pain being so great as to compel her to remain in bed. The amount lost was also excessive, and large coagula were passed. On vaginal examination I found that there was a large globular mass, occupying Douglas' space, and descending rather deeply into the pelvic cavity. The cervix was displaced forwards and jammed behind the pubes. The uterine cavity measured 3½ inches with the sound. The tumour was diagnosed to be a fibroid growing from the posterior wall of the uterus above the cervix, but from its remarkable mobility it was thought that it probably had a somewhat narrow pedicle. At this time the following note was made in my case-book.—"In the event of pregnancy from the position and mobility of the tumour, it is far from improbable that it would become impacted in front of the head, and, in that case, it might form an almost insuperable obstacle to delivery. I cannot but feel that should —— become pregnant the case would give rise to the most serious anxiety."

Shortly afterwards this lady became pregnant, and her case, as was anticipated above, did give rise to anxious consideration. I was fortunately able to command the best assistance in its management, and I at various times had the privilege of meeting several of our leading obstetricians in connection with it. From the mobility of the tumour some of the gentlemen who saw the patient with me thought the tumour might be ovarian, but the event proved the original diagnosis to be correct. The anxieties it gave rise to became further increased by the unpleasant discovery that the patient had a large amount of albumen in her urine. It was decided that no immediate steps should be taken, and in the later months of pregnancy, I had the satisfaction of finding that the tumour was rising higher and higher in the pelvis, and eventually it was almost entirely above the brim. Labour came on at term in September, 1879. It was perfectly easy and

normal in every way. No difficulty was caused by the tumour, which spontaneously rose entirely above the brim. The uterus contracted firmly and well, and the recovery was most satisfactory.

I have since frequently examined this patient, and, as is so often the case, the tumour has to a considerable extent lessened in size since delivery, partaking of the general involution of the uterus. Moreover, it has not again descended into its former position in the pelvic cavity, being now entirely above the brim. The dysmenorrhœa, from which this patient formerly suffered, has since labour entirely disappeared.

The result in this case was a very happy one. The spontaneous rising of the tumour above the brim spared us the necessity of any active interference; such a termination, however, is rare, and I have not met with it in any of the cases I have seen in which the tumour was originally situated below the brim of the pelvis.

The next case was that of a lady, æt. 30, who was sent to me in July, 1880, by Mr. Spencer Wells, with a request that I should take charge of her during her labour, which was expected about Christmas. About two months after her marriage, being then travelling in Switzerland, she had some pelvic pain, which induced her to consult a physician in Zurich, who told her that she had a large fibroid of the uterus. On this she came to London and placed herself under the care of Mr. Spencer Wells, who verified the opinion which had been given her. After a time, finding she was pregnant, Mr. Wells placed her under my care, and we subsequently frequently met in consultation on her case. The following is the memorandum I took of her case on first seeing her:—"The greater part of the cavity of the pelvis is occupied by a rounded, somewhat nodulated mass, which, by bimanual examination, can be made out rising above the pelvic brim. The cervix is pushed forward behind the pubes, and is so high up as to be reached with difficulty." It was quite clear that in the existing state of things delivery *per vias naturales* was

quite impossible. We decided, however, that the case should not then be interfered with, in the hope that, as pregnancy advanced, the tumour might spontaneously rise into the abdominal cavity, as so happily occurred in the last case. Mr. Wells and I frequently saw this patient together, and in some degree this expectation was realised, as the tumour rose to a considerable extent as the uterus enlarged. Between the seventh and eighth months, however, it became stationary, and as it still occupied the greater portion of the pelvic brim, and to such an extent as to preclude the possibility of natural delivery, it became an anxious question as to what should be done. On the 30th of November Dr. Braxton Hicks met us in consultation, and, after deeply anæsthetising the patient, we made an attempt at pushing the tumour above the brim, in which, however, we were not successful. We then resolved on the induction of premature labour, believing that in any case it would be an advantage to have a child smaller than at term. We determined that if when labour supervened it was found impossible to deliver, that Mr. Wells should perform Porro's operation, and remove the uterus and tumour together, believing that this would give the patient a better chance than any other procedure.

On the evening of December 1st I introduced a male elastic catheter between the uterine walls and the membranes, and a full-sized sponge-tent into the cervix. Next morning, on removing the sponge-tent, the cervix was found to be fully dilated, pains occurred at intervals of ten minutes, and the head was found to be presenting. I now resolved to make another determined effort at reposition, and when the patient was deeply anæsthetised I passed my whole hand, or rather my closed fist, into the vagina, and made strong upward pressure on the tumour. After using a considerable amount of force I had the satisfaction of feeling the tumour recede above the pelvic brim. I then immediately turned the child by the bi-polar method, and brought down a foot, being anxious to empty the uterus

before the tumour was again forced down by the pains. The body passed with great ease, but when the head reached the pelvic brim much difficulty in extracting it was experienced, and I thought at one time that it would be necessary to perforate. I think it likely that this obstruction was caused by the tumour falling down on the brim, and partially occupying its old position. The child was apparently stillborn, but was eventually resuscitated. The uterus contracted firmly and well, and there was no post-partum hæmorrhage. The tumour could after delivery be made out through the flaccid abdomen growing from the right posterior surface of the uterus. The patient made an excellent recovery without complication of any kind.

This, with two cases mentioned in my former paper, makes three cases that have come under my observation of fibroid tumour occupying such a position in the pelvis that had it not been possible to get them out of the way the Cæsarean section would have been inevitable. Happily in all three strong upward pressure succeeded in dislodging them, so that delivery was effected *per vias naturales*, twice by turning, once by the forceps. They teach us, I think, the hopefulness of such a procedure, and the advisability of making a strong and persistent effort at reposition, in which an amount of force may be necessary which would be quite unjustifiable were there any less terrible alternative to be selected than the Cæsarean section.

ANNUAL MEETING.

FEBRUARY 2nd, 1881.

Wm. S. Playfair, M.D., F.R.C.P., President, in the Chair.

Present—66 Fellows and 14 visitors.

James Robert Jones, M.B., was admitted a Fellow of the Society.

The following gentlemen were declared admitted:—Wm. Hankes Day, M.R.C.S. (Norwich); Griffith Griffiths, M.R.C.S. (Brynedyn); James Hair, M.D. (Peterborough); John Fisher Le Page, L.R.C.P. Ed. (Durham); Richard James Mills, M.B. (Norwich); Alfred T. Roworth, M.R.C.S. (Grays, Essex); Charles James Sutherland, L.R.C.P. Ed. (South Shields); Henry Thompson, M.R.C.S. (Hull), and J. A. Melville Thomson (Newport, Shropshire).

On taking the Chair the President declared the Ballot open for one hour, and nominated Dr. James Inkson and Mr. Frederick Wallace as scrutineers.

DEPRESSION OF THE FRONTAL BONE.

Dr. Godson exhibited two infants, each of whom showed a deep depression in the left frontal bone, the result of pressure from the sacral promontory during delivery.

One of them, four days' old, was delivered by forceps at the City of London Lying-in Hospital by Dr. Burchell in Dr. Godson's presence, and at the time of birth the indentation was so great that the bone appeared to have been fractured, the blade of the forceps encircled the left malar bone and had not slipped; the depressed bone was quite clear of it. The pelvis of the mother was much deformed.

The other infant was delivered seven weeks ago by forceps. The mother, who was present, would be at once recognised as rickety. The sacrum presented a sharp angle. This was her fourth child. The previous labour had been induced on account of the severity of the others.

Dr. Godson had brought the cases forward on account of the identity of the locality of the depressions. It appeared to him natural that in a first presentation the head, in endeavouring to rotate into the antero-posterior diameter, should receive the pressure on the left frontal bone when the sacrum was unduly prominent, and it was well known how by such pressure not infrequently flexion was prevented, and a face presentation was the result. Had flexion taken place before the head stuck and was subjected to great pressure, the indentation would probably have been on the left parietal bone, and this would, perhaps, account for the diversity of opinion as to the most common situation of these furrows and fractures.

Dr. Wiltshire has seen several such cases; mostly they had occurred in connection with rickety pelves, the sacral promontory jutting out and indenting the fœtal head. Such depressions, as shown in Dr. Godson's first case, were not caused by forceps. Generally the depression did not persist, and it could

sometimes be removed by atmospheric exhaustion. He had seen convulsions produced by deep depressions. Similar pits in the soft skull of the infant might be produced traumatically and disappear spontaneously. Dr. Wiltshire gave an instance which had occurred at St. Mary's. He had only seen such depressions in fœtal skulls produced during parturition in association with deformity of the maternal pelvis.

Dr Fancourt Barnes said that, in connection with the injuries which the forceps was sometimes credited with in such cases, it might be of interest to state that he had lately seen a child born with just such a furrow as was seen on one of the children shown by Dr. Godson, although instruments had not been used. In this case he had been sent for by one of the midwives of the Royal Maternity Charity to apply the forceps, but the child was born before he arrived to do so. There was in this case a projection of the sacral promontory.

Dr. Carter said a few months ago he assisted at the delivery of a lady who had a contracted pelvis, the conjugate being narrowed. The left parietal bone of the child was deeply indented, sufficiently so as to put into the depression the bowl of a dessert spoon. The forceps were not put on till the head was in the pelvic cavity, the labour having gone on for some hours, so that the depression in this case was caused by uterine action alone forcing the head past the promontory of the sacrum. The child did well, had no symptoms of pressure upon the brain, and in about three weeks time the bone had almost recovered its normal contour.

Dr. Godson, in reply, said that after the birth of the child first shown he reapplied the forceps over the mark left by it, in order to demostrate the impossibility of the depression having been caused by it. He was perfectly certain that the instrument was no factor in its causation.

MODIFICATION OF HODGE'S PESSARY.

Dr. Gervis exhibited a modification of Hodge's pessary in which the sacral end instead of being as usual rounded presented a considerable central depression. The advantages claimed for this were that the tendency of the fundus to roll to one side of the pessary was obviated;

that a much steadier pressure on the fundus was thus maintained, and any shifting of the pessary prevented. The makers were Messrs Walters, Palace Road.

Dr. Barnes said that the pessaries sold as his were not of the form in which he used them. They were made of flexible metal, and he moulded them himself according to the conditions of each patient. It was not only necessary to have the upper or uterine end flatter and wider, but it was essential to provide a proper pelvic or vaginal curve. He thought the square shape of the inferior end of Dr. Gervis's pessary objectionable.

EXTRA-UTERINE PREGNANCY.

Dr. Burton showed a specimen. It occurred in a married woman, æt. 31, mother of five children, the youngest of whom was seven months old, still suckling. The menses had been on from the 17th to the 22nd of January. On the 24th, during coitus, she slipped and fell, and immediately experienced a sharp pain at the lower

part of the abdomen, about two inches from the mesial line. She became faint, vomited twice, and had several actions of the bowels. On seeing the patient five hours and a half after the injury Dr. Burton found her in bed complaining of severe pain in the spot previously described, the position limited and well defined could in fact be covered by the tip of the forefinger. The vomiting had ceased, pulse scarcely perceptible at the wrist, countenance anxious, extremities very cold, thirst intense. She expressed herself as feeling certain that she was dying, and was evidently sinking rapidly from internal hæmorrhage. The only position in which any amount of relief could be obtained was by lying on the stomach. Brandy, ammonia, ice, &c., were administered, and warmth applied to the extremities, but she continued to sink, and died nine hours after the injury.

A post-mortem examination was made eighteen hours after death; the body was well nourished and the organs generally healthy. On opening the abdomen a large clot of blood was found filling the pelvic cavity and extending some distance upwards towards the umbilicus. In all, between four and five pints of very dark blood were removed. On examining the uterus and its appendages, the right Fallopian tube, about an inch from the uterus, was expanded into a cyst about the size of a Barcelona nut, in the upper surface of which was an opening big enough to admit an ordinary probe. This cyst has been cut open and will be seen to contain a fœtus of about six weeks gestation. The umbilical vesicle is distinctly seen. The left ovary contains a corpus luteum of about quarter of an inch in diameter; the right ovary on section differs in appearance from the other. It is mottled with brownish streaks, and does not to the naked eye show any ovisacs. The uterus is large, measuring three inches and a quarter in length, its canal measuring two inches and three-quarters, of which the cervix occupies one inch and a quarter. The cavity is lined by a smooth decidua five sixteenths of an inch in thickness. The cervix has

evidently been lacerated in former confinements, and its canal seems rather larger than usual.

The practical point of course is, could anything have been done to save the poor woman's life. The woman was still suckling, she had only two days before finished her menstrual period. She had not had a single symptom to indicate pregnancy (and she had in the previous pregnancies suffered severely during the earlier months), yet by a negative process of reasoning I was driven to the conclusion that this was a case of ruptured Fallopian tube. Had I been called to see her, say two hours earlier, I should certainly have advised gastrotomy as affording the only chance of saving her life. The history of the case, the sudden pain, limited to one fixed spot, the condition of the woman, all pointed to the sudden bursting of a blood-vessel which could have been none other than one connected with the Fallopian tube; but the length of time that had been allowed to elapse, the enormous loss of blood that had evidently taken place, the prostrate and almost pulseless state of the patient, deterred me from attempting any operative interference.

Dr. WILTSHIRE said this was another and an emphatic illustration of the importance of carrying out where feasible, a practice he had already repeatedly recommended in such cases, viz. the ligature and removal of the burst Fallopian tube. Had Dr. Burton seen the case earlier he might have had the privilege of rescuing his patient from the jaws of death for he had accurately diagnosed the lesion. Dr. Wiltshire, while admitting the difficulties with which these grave cases were surrounded, thought it would some day be practised to the saving of the patient and credit of the profession.

Dr. Westmacott direx.t

CASE OF VILLOUS DEGENERATION OF THE ENDOMETRIUM.

By D. C. MacCallum, M.D., M.R.C.S. Eng.

PROFESSOR OF MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN TO THE M'GILL UNIVERSITY.

Mrs. H—, æt. 51, was admitted into the Montreal General Hospital, October 4th, 1879, for metrorrhagia. She has been married thrice, but has never born a living child. She became pregnant about twenty years ago, and aborted at the fifth month. Her mother suffered from melanotic cancer of the eye, and after removal of the organ the disease reappeared in the orbit and terminated fatally. No other case of malignant disease, so far as she knows, has occurred in her family. Her menses always observed the regular period, but the flow was scanty, seldom continuing longer than two days, and was accompanied by pain. After the menopause, which occurred at the age of forty-five, she suffered from a leucorrhœal discharge which persisted for several years. Three years ago she noticed a bloody discharge from the vagina which she believed to be a return of her menses. This discharge recurred at short intervals, and at length became so profuse that she applied to a physician for relief. Not having received any decided benefit from the treatment adopted she entered the hospital.

On examination the vagina was found healthy. The uterus was in normal position but less movable than usual, and it was somewhat enlarged, the uterine sound passing to the depth of three inches. The introduction of the sound gave rise to considerable pain and was followed by moderate bleeding. She remained in the hospital from October 4th, 1879, till January 8th, 1880. During this time she had several attacks of profuse hæmorrhage, and in the intervals between them there was a free discharge from the vagina of a greyish colour, which became very

offensive in the month of December and continued so until her death. She suffered also from severe pain in the thighs, and afterwards in the hypogastrium. This pain was not constant but periodic. It came on at midnight and continued for about twelve hours, after which it ceased, and during the interval she was perfectly free from pain. Having obtained some measure of relief from the pain, and the hæmorrhage becoming less frequent and less profuse, she left the hospital on January 8th, but was readmitted on May 13th, 1880.

Has emaciated considerably and has now a sallow cachectic appearance. Her countenance is expressive of anxiety, and she is very irritable and fault-finding. The discharge from the vagina is sanguineous and very offensive. The pain is still periodic, coming on daily at 10 p.m. and lasting till 6 a.m. on the following day, there being complete immunity from pain during the interval. By conjoined manipulation and the introduction of the uterine sound the uterus is found to have increased in size since she was first examined. The anterior lip of the os uteri is firm, smooth, rounded and prominent, giving the impression of a small fibroid in the anterior wall of the cervix. The posterior lip is thin and expanded over the enlarged anterior lip.

A large sized laminaria tent was introduced and allowed to remain for twenty-four hours. This dilated the cervix sufficiently to admit the finger as far as the second joint. Several soft, irregular projections from the endometrium could be felt. No further examination or interference was had recourse to, as a slight cut in the forefinger of my right hand having been poisoned by the discharge, severe inflammation followed, which was a long time in subsiding. On June 9th a pledget of four laminaria tents was introduced. This opened up the uterus perfectly. The anterior lip being seized with a vulsellum and the uterus steadied, the cavity was fully explored with the finger. The whole surface of the endometrium was felt covered with vegetations, in places more closely and thickly grouped than in others, and forming distinct and pro-

jecting masses. These projections were most marked at the fundus. The masses were irregular and soft, and portions could be detached by the finger. The sharp curette was introduced and the interior of the uterus thoroughly scraped. More than a tablespoonful of the growths was removed. They were soft and of a greyish colour. Their removal was followed by a smart hæmorrhage which ceased on the cavity being swabbed by fuming nitric acid. Portions of the growths were sent to Dr. Osler, Professor of Physiology, McGill University, for examination with the microscope. He reports as follows:—"The specimens submitted consisted of small, irregular, greyish-looking masses, blood stained and mixed with small clots. Teased specimens showed the tissue to be made up of two chief elements, (1) cells, epithelial in character, the majority of the columnar type, non-ciliated, but resembling somewhat the epithelium of the mucous membrane of the uterus; (2) a fibrous stroma made up of irregular spindle-shaped cells, usually compressed together, but isolated ones were not uncommon in the field. Unfortunately, sections were not made of the growth, and the relations of the cells to the stroma were not ascertained. I was struck with the character of the growth, and remarked to the member of my histology class who brought the specimen to me, on the difficulty of determining its precise nature."

Subsequent to the scraping of the interior of the womb and the application of nitric acid, there was no return of bleeding, but a pinkish and highly offensive discharge continued to flow from the vagina, and the pain was not relieved. The discharge becoming gradually more profuse and her general health rapidly and seriously impaired, it was decided to again dilate the uterus sufficiently to permit the introduction of the curette and the removal of any newly formed growths from the surface of the endometrium that might be detected. A small sized Lawson Tait dilator was introduced at noon on July 16th, and a second size six hours later. After removal of the

offensive in … was made twenty-four
until her … was much wasted. On
the thighs, … uterus was observed to be
pain was … from congestion. It was
night and … and there were adhesions
it ceased, … There was no trace of recent
from pelv… coils of the small intestine
the pain, … together by old adhesions. On
less profo… uterus the walls were found
readmitt… cavity large enough to hold a
Hen… limited portion of the wall of
cachectic … body of the organ was about
anxiety … remaining portion. This corre-
dischar… on the interior, rather larger
The p… whole endometrium, with the
lasting … ounted, was covered with soft
immu… greyish-red colour, grouped
many … These were easily broken down with
uteri… detached from the proper tissue
exam… which the diseased structure did not
rou… connected. The villosities were
fibr… to the lining membrane of the
lip … The cervix uteri was deeply ecchy-
… the dilator. Its structure was
… membrane unbroken.
… the disease having infected other

… disease of the uterus, and its uncertain
… render the record of every case
… interest to the profession.
… on 'Lessons in Gynæcology,' Dr.
… three cases, and observes:—"Apart
… observed by Drs. Lusk and
… the two of Dr. Duncan's, I know of
… stories." The cases of Dr. Matthews
… he refers, were published in the

'Obstetrical Journal of Great Britain and Ireland,' November, 1873.

Considerable doubt exists as to whether the disease is to be grouped with malignant affections. In four cases, namely, in those of Drs. Lusk and Bertelot, in one of Dr. Goodell's, and in one of Dr. Duncan's, the clinical features were certainly those of malignant disease. The remaining two cases of Dr. Goodell's pursued a benign course.

In the case of Mrs. H—, taking into consideration her age, the bloody fœtid discharge, the pain, the great irritability of temper, and the marked impairment of health, with absence of any organic change in the cervix or os uteri, I at first diagnosticated commencing cancer of the body of the womb; but after she had been under observation and treatment for some time, as there was no marked alteration perceptible either in the size or structure of the organ, I doubted whether my diagnosis was exactly correct. I therefore dilated the uterus and found by digital exploration the condition of villosity which is well represented in the accompanying plate. In its progress the disease presented clinically all the characters of malignancy—pain, fœtid discharge, rapid emaciation, and pronounced cachexia. The death of the patient was no doubt accelerated by the effects of the last dilatation; but latterly the degradation of health had been so rapid that the strength had failed so signally, that she must have succumbed to the disease within a short time.

It is greatly to be regretted that, in consequence of the uterus having been accidentally thrown away, the opportunity was lost of making a thorough microscopical examination of the structure of the diseased mucosa, and its relation to the walls of the organ.

The association in this case of ulceration with villous degeneration, supports the view expressed by Dr. Duncan in his clinical lecture on "Cancer of the Body of the Uterus" namely, that "ulceration seems often to follow a previous condition of villosity."

Dr. Galabin said that it was unfortunate that the precise

structure of the diseased tissue had not been made out by examination of sections. It was clear, from the course of the case, that it was clinically one of cancer, whatever its histological character might be, and was therefore to be separated from the non-malignant form of villous degeneration of the endometrium. Since, in a teased out specimen, it was found that beside the fibrous stroma there were cells epithelial in character, and chiefly of the columnar type, there could hardly be a doubt that the disease was the so-called "cylinder epithelioma," commencing by the proliferation and degeneration of the uterine glands. In several cases he had found this condition to be uniformly distributed over the mucous membrane of the body of the uterus, so that at first sight it might appear to be non-malignant. One specimen, shown a year ago by Dr. Heywood Smith, and reported on by Dr. J. Williams and himself as a case of cylinder epithelioma, had been considered by other pathologists to show merely hypertrophy of glands. Since the disease was for some time confined to the body of the uterus without reaching the external surface, it would probably afford a better chance than cancer of the cervix for eradications by total extirpation of the uterus.

Annual Meeting.

The Report of the Treasurer, Dr. Gervis, with the audited balance sheet, was then read.

Moved by Dr. Champneys, seconded by Dr. Potter, and carried unanimously, "That the auditors' report be received and adopted."

The Report of the Librarian was then read, and its adoption was moved by Dr. Wiltshire, seconded by Dr. Daly, and carried unanimously.

Report of the Honorary Librarian.

In presenting to the Society the Report which it is usual for the Honorary Librarian to make, I have only to

BALANCE-SHEET OF THE OBSTETRICAL SOCIETY OF LONDON.

(Abstract of the Receipts and Expenditure for the year ending December 31st, 1880.)

1880. RECEIPTS.	£	s.	d.
To balance in hand from balance-sheet for 1879	95	3	11
(1) Subscriptions received during 1880: 633 at £1 1*s*.	664	13	0
(2) Composition Fee	10	10	0
(3) Fines	1	0	0
(4) Midwifery Examination Fees	23	2	0
(5) Sale of 'Transactions,' 'Rules for Infant Management' (Longmans) £50 0 4			
Do. Do. (Society) 3 11 10			
Sale of Duplicate Books 0 13 0			
	54	5	4
(6) Interest on 3 per cent. Consols: January, 1880 £17 18 9			
July, 1880 17 18 9			
	35	17	6
Amount of stock, 3 per cent. Consols, standing in the names of the Trustees: January, 1881 £1221 6 0			
	£884	11	7

By EXPENDITURE.	£	s.	d.
(1) 'Transactions,' Vol. XXI: Printing, Lithography, Paper, and Binding, Composition of Index, and delivery of Volume	259	13	8
(2) Library: Books Purchased and Binding	57	13	6
(3) Museum and Library: Rent, Salaries, Furniture, Insurance, Petty Cash, &c.	284	16	8
(4) General Meeting and other Expenses: Meeting-room, Expenses of Meetings, Collection of Subscriptions, Postages, Stationery, &c.	127	18	5
Balance in hand at Bankers	154	9	4
	£884	11	7

January 24th, 1881.

Examined and found correct,

W. F. CLEVELAND,
JOHN WILLIAMS,
HENRY CHARLES ANDREWS,
} *Auditors.*

state that the Library has been, during the year, as much used by the Fellows of the Society, and as efficiently and as courteously managed by our excellent Librarian, Mr. T. Watson, as heretofore; and that the Library Committee have endeavoured, by recommending to the Council the purchase of each new work of importance that has appeared (and has not been presented to the Society), to make the stock of books continue to adequately represent obstetric literature.

At the beginning of the year 1880 the Library contained 2796 volumes. During the year, 37 books and 45 pamphlets have been presented to the Library, 33 books and 31 pamphlets have been purchased, and the periodical publications taken in are 46 in number; so that in all, 123 volumes have been added to the Library, which now contains 2919 books.

A catalogue of the Library, classified according to subject, the works on each subject arranged in chronological order, will, it is hoped, be shortly in the hands of the Fellows of the Society.

G. Ernest Herman.

The Report of the Board for Examination of Midwives was then read, and its reception and a vote of thanks to the Chairman, Dr. Aveling, was proposed by Dr. Godson, seconded by Dr. Galabin, and was carried with applause.

The Examination of Midwives.

The Board established by the Society for the examination of midwives has had a larger number of candidates to examine than upon any previous year. The number of applicants last year was twelve, this year there have been twenty-four women seeking the diploma of the Society. This increase in the number of candidates is probably in a great measure due to the new rule, which enables country women to undergo their written examina-

tions nearer home, each Local Secretary being now empowered to superintend these examinations in the town for which he holds his appointment.

Although the Board observes this increase in numbers with great satisfaction, it still continues to feel how inadequate the efforts of the Society are in providing a public test for skilled midwives; and it begs respectfully to point out to the Council the necessity there is for further exertion to induce the Government to recognise the importance of ameliorating the present condition of midwives.

The Board has reason to believe that the Lord President would, at the present time, receive with favour a deputation from this Society, urging the importance of securing for the public safety a body of competent midwives.

J. H. AVELING, M.D.,
Chairman of the Board for the Examination of Midwives.

The Scrutineers retired, and on their return the result of the ballot for officers and council for the ensuing year, was declared as follows:

Honorary President.—Arthur Farre, M.D., F.R.S.

President.—J. Matthews Duncan, M.D., F.R.S. Edin.

Vice-Presidents.—John Bassett, M.D. (Birmingham); Jonathan Hutchinson, F.R.C.S.; John Baptiste Potter, M.D.; George Roper, M.D.; John Thorburn, M.D. (Manchester); John Williams, M.D.

Treasurer.—Henry Gervis, M.D.

Honorary Secretaries.—Clement Godson, M.D.; Alfred Lewis Galabin, M.A., M.D.

Honorary Librarian.—George Ernest Herman, M.B.

Other Members of Council.—James Andrews, M.D. R. S. Fancourt Barnes, M.D.; Henry Bennet, M.D. (Weybridge); Charles Henry Carter, M.D.; Francis Henry Champneys, M.A., M.B.; Richard Cross, M.D. (Scarborough); Robert Cory, M.B.; Edward Malins,

M.D. (Birmingham); George Rice Ord; Richard King Peirce; David Lloyd Roberts, M.D. (Manchester); Frederick William Salzmann (Brighton); Charles Brodie Sewell, M.D.; William Daniel Slyman; William Stephenson, M.D. (Aberdeen); George Dancer Thane, M.D; Frederick Wallace; George Eugene Yarrow, M.D.

The President then delivered his annual address.

ANNUAL ADDRESS.

GENTLEMEN,—It is again my pleasing duty to congratulate the Society on its continuous prosperity. Since our last annual meeting we have elected forty new Fellows, while we have lost thirty-seven by death and resignation. The Society now numbers 749 Fellows.

Outside the special work of the Society there are two matters worthy of your notice, since they have to do with the general progress of the department of medical science in which we are specially interested.

One of these is the representation of obstetrics on the General Medical Council. The attention of the profession has more than once been called to the strange fact that in what is practically the parliament of our profession, which undoubtedly ought therefore to represent all branches of medical practice equally, there has hitherto not been a single member who practised obstetrics, and who might claim to speak with authority when subjects connected with it were discussed. The result of this glaring defect has been that obstetrical questions have been very inadequately treated; not, I am sure, purposely, but from a very natural ignorance of their merits. When we reflect that obstetrics form a large and important part of the daily work of an immense majority of the medical profession, we are surely justified in maintaining that there should be some members of the Medical Council who know something about the matters

they are discussing. During the past year a vacancy occurred in the Medical Council by the death of Dr. Hudson, and since the nomination was vested in the Crown, your Council empowered me to head a deputation to the Lord President of the Council for the purpose of pointing out to him the facts I have alluded to. Unfortunately he was unable to receive us, and I therefore addressed to him a petition on behalf of the Council, a similar course having been adopted by the Obstetrical Society of Dublin. No definite decision has yet been announced, but there is good reason to hope that our memorial will lead to the nomination of an eminent obstetrician, whose name is of itself a sufficient guarantee that the interests of obstetrics will in future be properly represented in the deliberations of the General Medical Council.

Another equally glaring, and even less defensible, anomaly was the fact that in the examination for the membership of the Royal College of Surgeons obstetrics had no place. As the membership of the College forms the most common of all the qualifications for general practice, that must be admitted to have been not only a defect, but an absurdity. That the College should give its *imprimatur* every year to the qualification to practise of hundreds of men, without the slightest attempt to satisfy itself that they possessed the most elementary knowledge of one of the most anxious and responsible branches of their profession, may fairly be said to have been something even worse than an absurdity. I am happy to be able to announce to you that this reprehensible state of things is about to be put an end to, the Council of the College having decided that on and after the 1st of January, 1882, the candidates for the membership shall be examined in midwifery as well as in surgery and medicine.

The past year has certainly been not less fertile than its predecessors in the amount of work which the Society has accomplished. Not only have the meetings been well attended, but the discussions have often been lively and

interesting. The custom which the Society has adopted from the first of reporting at length in our 'Transactions' the discussions which have followed the reading of papers has always seemed to me to be a very valuable one. By this means the varying opinions entertained on any special subject are permanently recorded, and much interesting information may be gathered from them which would otherwise never be obtained and be entirely lost. I am conscious of having myself gained, from time to time, important knowledge from this source.

At our first meeting we had an elaborate statistical record by Dr. Champneys on the site, character, and best mode of relieving the pain in uterine cancer. The deductions made by him from fifty carefully observed cases differ somewhat from the opinions which have been generally entertained. In his statistics as many of the patients affected were between thirty and forty as between forty and fifty years of age. This is certainly contrary to general experience, and Dr. Champneys' results were probably to some extent accidental, in consequence of the comparatively small number of cases observed. Thus, for example, out of 108 cases carefully noted by Scanzoni, 60 occurred between forty and fifty years of age, and only 35 between thirty and forty; while out of 112 cases recorded by Emmet, 42 occurred between forty and fifty years, 30 only between thirty and forty. It is to be hoped that Dr. Champneys will extend his observations on this disease to other points even more important than that of pain. I know of few topics in connection with gynecology in which more promising results are likely to be obtained by advancing knowledge than in that of uterine cancer. To point to one subject in connection with its etiology only, the statement made by Emmet, and supported by Thomas in his latest edition, that all cases of epithelioma have their origin in laceration of the cervix, requires careful study; since, if this be so, prevention is not altogether beyond our reach. Then, as regards treatment, we are already far in advance of the gyneco-

logists of only a few years ago in dealing with this most deadly disease; and the very generally entertained opinion of pathologists of the present day as to its essentially local origin, strongly encourages us to study the means at our disposal for eradicating it before it has made such ravages in the affected part as to render all interference useless. This subject has already engaged the attention of the Society in a paper by Dr. Wynn Williams on the local treatment of cancer by bromine. In the removal of epitheliomatous growths of the cervix by the knife and galvano-caustic, after the plan recommended more especially by Marion Sims, I have, from time to time, obtained most encouraging results, and the possibility of dealing with such growths much earlier and more effectually than has hitherto been the case should obtain our earnest attention. Then, again, there is the very important subject of the total extirpation of the uterus in early stages of malignant disease, a question which calls for the most serious study, and which, strangely enough, has not been yet taken up in this country, the cradle though it be of abdominal surgery. Although the originator of the method, Professor Freund, of Breslau, has operated fourteen times with five recoveries, and his example has been followed by many of the leading surgeons in Germany, I have only heard of one or two unsuccessful operations in this country, and the subject has not yet been brought under the notice of this or any other society. Probably the extreme complexity of Freund's operation may account for the small degree of favour it has as yet received in Great Britain. No one can doubt, however, that in these days, in which uterine symptoms receive much earlier attention than was formerly the case, malignant disease of the uterus may very frequently be detected before it has spread to any of the surrounding tissues, in which it is strictly limited to the uterus, and in which that organ is still perfectly mobile. Perhaps there is no organ in the body, except possibly the mamma, in which total extirpation promises more successful results, if only a compara-

tively simple operation could be devised. It is worthy of note that that great obstetrician, Dr. Blundell, fully recognised this fact long before the days of abdominal surgery had commenced, and actually removed the uterus in four cases from the vagina, and I am by no means certain that some modification of the plan he adopted may not yet be found easier than Freund's operation. As a matter of fact, Professor Billroth, of Vienna, has, during the past year, resorted in several cases, in some successfully, to a modification of Blundell's operation, which he maintains to be far more easy and satisfactory than Freund's. Be this as it may, I trust I may be pardoned for specially directing the attention of those of our Fellows who are experts in abdominal surgery to this topic, in the hope that they may, ere long, bring it under the notice of the Society.

At the April meeting Mr. Lawson Tait read a paper, which may be here mentioned as it deals with an interesting and hitherto little studied point in abdominal surgery, on "The Axial Rotation of Ovarian Tumours leading to their Death." It not only added to our knowledge of the accidents attending ovarian disease, but led to an important discussion, in which many of our prominent ovariotomists took part, which the Fellows doubtless remember. Mr. Tait's ingenious theory as to the cause of this accident being the alternate filling and emptying of the rectum, although not generally admitted to be correct, struck me as very interesting. There can be no doubt that the presence of this viscus, and its varying dimensions in the pelvis, plays an important part both in obstetrics and gynecology, which has not been sufficiently studied, although its influence has been recognised by Sir James Simpson and other writers. I can imagine a valuable paper being composed on this subject.

Another of the burning questions of the day in connection with abdominal surgery occupied the Society on the reading of a paper by Dr. Godson, recording a successful laparotomy performed by Mr. Spencer Wells, and a very

important paper by Mr. Knowsley Thornton on "The Removal of Uterine Fibroids by Laparotomy," and certainly no more interesting subjects could come under discussion. We had the advantage of hearing the views of many well qualified to speak on this point. No one can doubt that a great future lies before this operation, and the brilliant results of the antiseptic method, properly and carefully carried out, in abdominal surgery, certainly render the chances of success much greater than they otherwise would be. While I fully admit that the removal of uterine fibroids by hysterectomy, in properly selected cases, is a perfectly legitimate procedure, I cannot think, with some who took part in the debate, either that this operation can be talked of as on a level with ovariotomy, or that it is ever likely to become so; and I am inclined to hold that this is a subject in which the brilliant successes of ovariotomy, and the operative skill resulting from them, are perhaps a little apt to warp our judgment. In diseases such as ovarian tumour, uterine cancer, and the like, which, if left to run their natural course, must, of necessity, ere long prove fatal, no difficulties and no dangers need stand in the way of an attempt at radical cure. In diseases which may embitter life from suffering, but which probably may not kill at all, or only after many long years, the resort to an operation of such gravity should, I venture to submit, stand on an entirely different footing. In some cases it is undoubtedly legitimate, and in one of Mr. Thornton's cases which I saw with him, I myself counselled the patient to undergo the operation; but the momentous decision is not to be lightly made, and much study of the natural progress of fibromas is still required before one can feel justified in arriving at very positive conclusions on this point. It is to be remembered, too, that in the cases of fibroid in which life is most often imperilled—those accompanied by profuse and exhausting hæmorrhage—there is a fair prospect of material benefit, if not of complete cure, from the far less serious and less difficult operation of spaying, the indications for which,

like those of laparotomy, are still *sub judice*. I have ventured to make these observations, because I fear there is a tendency to resort somewhat rashly to this grave procedure, which time and greater experience will doubtless modify. I am well aware that in the hands of such experienced and careful operators as Mr. Thornton there is no risk of the kind I have indicated, but I have elsewhere known of more than one case in which laparotomy has been recommended where, in my judgment, it was by no means imperative, and in which the tumour in no way imperilled the patient's life, and even interfered very little with her comfort. A word of caution may, I trust, therefore be considered to be not altogether out of place.

The June and July meetings were pretty fully occupied by a paper by Dr. Graily Hewitt, on "Uterine Flexions," and by the discussion which followed it; and although it was not a formal debate on a settled subject, such as that which we had last year on the "Use of the Forceps," it was so animated and prolonged that it practically assumed the dimensions of one. I have heard it said that we have had somewhat too much of flexions in our Society, and that it was time the subject was dropped. I cannot myself quite endorse that view, for, doubtless in great measure owing to Dr. Hewitt's persistent advocacy of his own theory of uterine disease, the profession and the public have got a rooted hold of the subject; and whenever uterine symptoms exist, not well understood, we are now told that the womb is probably displaced. It is, I think, greatly to be regretted that in gynecological practice there is this tendency to run into extremes, and fix attention too exclusively on one class of disease only, whether it be what is called an ulcerated womb, a displaced organ, or, what is likely to be the gynecological lesion of the future, if we may believe our American brethren, a lacerated cervix. This being so, it cannot be unimportant that the subject should be thoroughly discussed in all its bearings; and I trust, therefore, that the time we devoted to it may prove to have been well spent. Personally,

although I dare say my friend, Dr. Hewitt, may consider me a somewhat lukewarm follower, I owe it to him to state that I attach much greater importance to flexions than I did some years ago, and this has followed from a study of his views and opinions. Indeed, I am at a loss to understand how any one who sees much uterine disease can possibly doubt the extraordinary effects produced by flexions, or the equally extraordinary results which follow judicious mechanical treatment. This is, however, a very different thing from admitting Dr. Hewitt's theory that all uterine disease is caused by flexions—a view which not only leads, as I venture to think, to mistaken practice, but causes those who adopt it to overlook many conditions of primary importance. I trust these remarks may not be misunderstood; but it seems to me, above all things, necessary in this special department of practice that we should hold broad views, and not let ourselves be led into a narrow groove, the following of which, by men less able than Dr. Hewitt himself, may lead to much that is strongly to be deprecated. In the address which I delivered at the Obstetric Section of the British Medical Association at Cambridge in August last, I ventured to point out that the reason why gynecological practice was in some respects so uncertain was the want of accurate pathological knowledge of the condition of the parts affected; a want for which we are not altogether to blame, since it results partly from the comparatively short time that has elapsed since the diseases of women became the subject of special study, and partly from the difficulties that surround the pathological investigation of the diseased organs. Since writing the above I have had the pleasure of reading in the new edition of our Honorary Fellow, Dr. T. Gaillard Thomas's admirable work on the 'Diseases of Women,' some remarks which so strongly corroborate the observations I have made on this point, that I shall venture to quote them. "Nothing," he says, "more decidedly retards the progress of gynecology, lowers it as a special study in the eyes of its sister departments, and fans the

dying flame of a prejudice with which it has been successfully able to contend only during the past half century, than the unsettled state of uterine pathology. In general medicine, in surgery, and in all other special departments, the study of pathology is made the keystone of the arch which supports them; and observers seem willing to agree as to fixed principles concerning it. In gynecology the whole subject presents the melancholy aspect of uncertainty and dissension. Many of its votaries, instead of taking broad and strong views, become the partisans of some special dogma or theory, which is warmly attacked by others who hold some view equally narrow, incomprehensive, and exclusive." Perhaps this unhappy state of things is not unnatural in a comparatively new study, but the more frankly we recognise the shortcomings of our department, the sooner shall we get rid of them; and we have had some excellent work before us, such as in the account of the "Pathological Anatomy of Erosions of the Cervix Uteri," and on the "Histology of Endometritis," by our honorary secretary, Dr. Galabin, which shows that considerable attention is now being paid to this topic.

There are many other papers of importance besides those I have referred to, on which, did time allow, I might very properly remark, but I have, I fear, already trespassed too long on your patience to justify my referring to them. I must, however, make a passing allusion to Dr. Priestley's interesting paper on "The Induction of Abortion as a Therapeutic Measure," since it is the first attempt, so far as I know, to systematise the causes which may justify the practitioner in resorting to this distasteful procedure, and to lay down laws for his guidance. It is surely time that a subject such as this should be fairly grappled with, and I am sure we must all agree in thinking that Dr. Priestley not only did us a service in bringing it before us, but that he has laid down a series of very judicious rules in regard to it, which, if strictly attended to, may prevent the abuse of this procedure. In other countries the production of criminal abortion has become, we are

told, almost a system, and is practised with unblushing openness, leading, as it may well do, to most disastrous results. Fortunately for us, nothing of the kind exists here, at least, not to any appreciable extent, and I trust that Dr. Priestley's paper may, by the safeguards it has laid down, assist in preventing this most pernicious practice ever becoming prevalent amongst us.

We have fewer deaths to lament amongst our Fellows this year than is usually the case. Amongst those of whom I can find no obituary record are William Henry Maberly, M.D., C.M. Edinburgh, of 1, Mineford Gardens, West Kensington Park, and Alfred Walker, M.D., of Fore Street, Hertford.

Dr. Thomas Fairbank, of Windsor, died with appalling suddenness on the 26th of March, at the early age of thirty-six, thus prematurely bringing to a close a career of great promise. Dr. Fairbank was born in 1843, and received his education at Forrest School, where he showed much aptitude for classical studies. His family wished him to proceed to Oxford, but his strong predilection for medicine induced him to forego the advantages of a university education, and, at the age of seventeen, he entered at the Medical School of St. Bartholomew's Hospital. Here he greatly distinguished himself, and proved the zeal with which he had devoted himself to medical studies by his brilliant success at the London University, where he graduated in 1864, securing a first class in medicine, forensic, and obstetric medicine, and gaining gold medals in the two former subjects. Shortly after this Mr. Brown, Surgeon to the Queen's Household at Windsor, having died, Dr. Fairbank was, on the recommendation of Sir James Clarke and Sir James Paget, selected to fill his place in partnership with Dr. Ellison. Dr. Fairbank was well fitted for this responsible post, and secured the regard of Her Majesty and many members of the Royal Family with whom he was brought in contact, as well as that of a large and influential private *clientèle*. It is not often that so young a man finds himself placed in such a

fortunate position, but in this instance, the good fortune was proved to have been well bestowed, and Dr. Fairbank was, I understand, for I had not the pleasure of being personally acquainted with him, a universal favourite. His lamented death was due to an aneurism of an artery in the brain. He contributed to the ninth volume of our 'Transactions' a very interesting case, in which the pelvis was extensively fractured during pregnancy, and in which a subsequent pregnancy was happily terminated.

In *Dr. Copeman*, of Norwich, the Society has lost one of its most valued provincial Fellows, who had acquired considerable eminence as an obstetrician, and one who evinced his interest in the Society by numerous contributions to its 'Transactions.' Dr. Copeman was born at Great Withingham, in Norfolk, in the year 1809. He commenced his medical career as a pupil, first of Mr. Brown, of Norwich, and subsequently of Mr. Crosse, the well-known surgeon of that city. He next studied at St. George's Hospital, becoming a Licentiate of the Society of Apothecaries in 1832, and a Member of the Royal College of Surgeons in 1833. He then served for some time as house surgeon to the Norfolk and Norwich Hospital, subsequently entering into general practice at Cottishall in Norfolk in partnership with the late Mr. W. Taylor. Here he obtained a large practice, but the sphere was too limited for his energies, and in the year 1848 he removed to Norwich, and established himself as a consulting physician, having previously obtained the Fellowship of the College of Surgeons by examination, and the M.D. of Aberdeen. He also became a Member, and was eventually elected a Fellow, of the Royal College of Physicians. Dr. Copeman's contributions to Medical Science were numerous and important, and he was peculiar in being one of the very few provincial physicians who specially cultivated, and greatly distinguished himself in the obstetric branch of medicine. His first work was on apoplexy, in which he was one of the first to object to the routine practice of indiscriminate bloodletting then in

vogue; and it is interesting, as an evidence of his fairness and impartiality, that one of his last papers, published in the 'British Medical Journal' in 1879, was a contribution on venesection in which he maintained that the reaction against that remedy had been carried too far, and instanced several conditions in which it might be usefully employed. It is, however, in Dr. Copeman's obstetric work that we are specially interested. His contributions to this branch of the profession are varied and numerous, and prove the great interest which he took in it. Among the most important may be mentioned several papers and monographs on puerperal fever, written chiefly with the view of impressing on the profession the value of turpentine in the treatment of this disease. In perusing these I have been struck with Dr. Copeman's clear appreciation of the nature of this scourge of midwifery practice, which seems to me to have been beyond the knowledge of the time at which he wrote, his first paper having been published in 1856. He then not only absolutely discards venesection in its treatment, but much more fully realises its adynamic nature than most writers at that time would have done. He also very distinctly states his belief that many cases were probably produced by the absorption of septic matter from putrid lochia, portions of retained membrane, and the like, and recommends as an essential part of the treatment the frequent and regular washing out of the vagina with copious injections of warm water, thus foreshadowing points in the etiology and treatment of puerperal septicæmia, the importance of which are now fully recognised, but which, at the time he wrote, had received little or no attention from the profession. Amongst other monographs he wrote may be mentioned one of considerable value, "On the Cerebral Affections of Infancy," which contains much interesting information. The work by which Copeman, however, will probably be best remembered is his suggestion for the relief of the vomiting of pregnancy by dilatation of the cervix uteri. There is something which seems to have taken the pro-

fession in this proposal, since much has been written upon it; and Dr. Copeman himself evidently believed that he had made in this a very valuable discovery. My own experience of it is too slight to justify my speaking of its merits with much confidence, nor can I say that in the cases I have tried it, I have found it answer the expectations of its originator, who obviously looked upon it as a specific in the treatment of the vomiting of pregnancy. What, however, has surprised me in reading both Copeman's papers, and those of others who have written upon the subject, is that no one seems to have been struck with the obvious danger attending it of inducing abortion. To me it seems evident that the rough and frequent dilatation of the cervix is a measure which may certainly do much to relieve sickness by putting an end to the pregnancy altogether, and, therefore, when practised, it should be in a very cautious and tentative manner. Dr. Copeman was also a frequent contributor to our 'Transactions.' Amongst his papers may be mentioned those on "Labour complicated by Pelvic Tumours," on "The Value of the Placental Souffle as a sign of Pregnancy," besides several others of considerable interest.

In private Dr. Copeman was respected and beloved by all who knew him. Like many men of distinction he did not limit his energies to his profession, but took an active part in much in connection with the city in which he lived, that was beyond the range of his professional work. Thus, being an enthusiastic and accomplished musician, he served for many years as the Chairman of the Committee of Management of the well-known Norwich Musical Festivals. He died on the 23rd of February from a sudden attack of cardiac dyspnœa, having been engaged in active work to the last. "Dr. Copeman," says a Norwich paper, in an obituary notice, "was not only an accomplished physician, but he was distinguished by great ability, combined with high and generous impulses. He was a warm friend, and, in every sense of the word, a Christian gentleman. By his death medical science has

been deprived of one of its most active votaries, and Norwich has lost one of her foremost citizens." Higher praise than this none of us need aspire to.

Henry Charles Bateman, F.R.C.S., who died on the 21st of November, at Islington, where he had practised for upwards of fifty years, was probably well known to many now present.

He was born in 1806 at Burton-on-Trent, and was educated at the Burton Grammar School. He received his medical education at St. Bartholomew's Hospital, where he was a fellow student of Owen, and a pupil of Abernethy. After completing his studies at Paris he settled in Islington in 1830, and was appointed surgeon to the Islington Dispensary. From that time to the end of his career, his life was one of unceasing work, much of it spontaneous and unpaid, such as few, even if their health permit, have the energy to undertake. He soon began to see patients gratuitously, and for eight years did so every day from before 6 until 9 p.m., and continued his practice three days a week up to the end of his life. It must, I fear, be admitted that such indiscriminate and exhausting self-imposed labour, although doubtless undertaken from the best motives, must necessarily have led to abuse. In addition to this Mr. Bateman gave much work to promoting the interests of the Swedenborgian community, of which he was a zealous supporter, and used to preach a sermon every Sunday. His death removes from the ranks of the profession a man in many respects remarkable, who for many years had carried on one of the largest obstetric practices in the Metropolis.

Amongst our Honorary Fellows we have to lament the loss of *Professor Francesco Rizzoli*, of Bologna, who died early in the year in that city. Rizzoli was comparatively little known in this country, yet he was a man of indomitable energy, profound scientific acquirements, and universally beloved and respected by his companions. Rizzoli was born in Milan in the year 1809, his father having been assassinated by brigands shortly before his

birth. Adopted by an uncle, he was educated at Bologna. After having completed his medical education at the University of Bologna, he was appointed assistant surgeon to the Hospital of the Abbandonati in that city, and in the year 1836 was made Assistant Professor of Surgery and Obstetrics, and in 1842 succeeded to the Chair when Professor Baroni removed to Rome, on being appointed medical attendant to Pope Gregory XVI. This appointment he held until 1865, when he became Emeritus Professor and consulting surgeon to the hospital. Rizzoli's life was one of unceasing labour. Besides a large number of unpublished monographs, which are shortly to be printed, he had published a voluminous and very valuable collection of papers on various subjects connected with surgery and obstetrics, which have run through several editions. This contains twenty-seven papers on surgical subjects, and eight on obstetrics. The latter are chiefly on points connected with obstetric operations, but one is on superfœtation and missed labour. It is specially interesting, as it embodies observations on these subjects which have recently been published in this country as new, and records many very interesting cases. Rizzoli was an ardent patriot, and signalled himself by his zealous endeavours to secure the unity of Italy. Some years before his death his public services were recognised by his being appointed a senator by Victor Emmanuel. Rizzoli bequeathed the whole of his fortune for the purpose of establishing a new hospital in Bologna, which is now in the process of construction.

And, now, Gentlemen, it only remains for me, in resigning the honorable position which, through your favour, I have held for two years, to renew to you my thanks for the confidence you placed in me by electing me to be your President. From the Council, and from every office bearer of this Society, more especially from our energetic and able Honorary Secretaries, I have had such zealous assistance, that the work I have had to do has been almost nil, and to each and all of them I

owe my hearty acknowledgments. To the end of my life I shall regard my occupancy of this chair as a most signal honour, and having the interests of the Society much at heart, I sincerely congratulate it on the prospects of being presided over by the distinguished obstetrician who is to succeed me, under whose leadership it cannot fail to flourish in the future, as it has hitherto done in the past.

Dr. PRIESTLEY said, in proposing the resolution which had been put into his hands, that he would with the permission of the President, and the concurrence of the Fellows, adopt the somewhat exceptional course of addressing himself directly to the Society rather than to the chair. He had great pleasure in moving a vote of thanks to the President for his excellent address just delivered, and for his conduct in the chair during his term of office. The Society had heard his admirable and lucid *résumé* of the chief events of the session, and it was gratifying to learn that during his occupancy of the chair, the Society had still continued to prosper. There had been no falling off in the number of Fellows, and the contributions and discussions had maintained the interest of former years. Fortunately, the President of the Obstetrical Society had not been embarrassed in conducting debates by the difficulties encountered by the Speaker and Deputy Speaker in another place, but he (Dr. Priestley) had had some experience in presiding over the discussions of the Society, and he knew quite well that it was not easy in regulating the proceedings to give satisfaction to all. He believed, however, that the Fellows would concur with him in thinking that Dr. Playfair had discharged his functions with conspicuous fairness, combined both with courtesy and urbanity. He was sure Dr. Playfair, in vacating the presidential chair, would carry with him the good wishes of the entire Society, and in retiring he would have the satisfaction of knowing that he would be succeeded by one who had attained more than a

European reputation, and who would be fully capable of maintaining the dignity of the chair.

The resolution he moved in formal terms was, "That the best thanks of the Society be given to the retiring President, Dr. William Playfair, for the efficient manner in which he has presided over the meetings of the Society during his term of office, and that he be requested to allow his interesting address to be printed in the next volume of the 'Transactions.'" This was seconded by Dr. GERVIS and carried by acclamation.

A vote of thanks was also moved to the retiring Vice-Presidents and other members of Council by Dr. BRUNTON, seconded by Dr. PERCY BOULTON, and carried unanimously.

MARCH 2ND, 1881.

J. MATTHEWS DUNCAN, M.D., F.R.S. Ed., President, in the Chair.

Present—62 Fellows and 11 visitors.

Books were presented by Mr. A. Doran, Dr. G. B. Ercolani, Dr. A. L. Galabin, Dr. George Hoggan, Prof. Alois Valenta, and St. Bartholomew's Hospital.

Kanaheiro Takaki, F.R.C.S. (Tokio, Japan), was declared admitted a Fellow of the Society; and George Albert Farrer, M.R.C.S. (Brighouse, Yorkshire), and William Gandy, M.R.C.S. (Gipsy Hill), were elected Fellows.

INTERSTITIAL FIBROID CAUSING RETROFLEXION.

DR. GODSON showed for Dr. DEWAR a specimen of interstitial fibroid, and read his notes of the case, as follows:

"Mrs. P—, æt. 43, widow, sterile. Three years ago I attended patient who was then suffering from pain in the back, &c., due to retroflexion of the uterus. A Hodge pessary was introduced, which she wore with advantage for some time; then it began to give her pain and had to be removed.

"About a year after this she was seized with an acute

attack of pelvic peritonitis which lasted six weeks, and left the uterus fixed and surrounded with plastic effusion. Iodine externally and locally was used but patient left off attending. Since that time has frequently complained of pain in the left side; but she was of a highly nervous temperament.

"Last Sunday evening was requested to see patient, and I found that for most of that day she had been suffering from severe vomiting and diarrhœa, with considerable pain and tenderness all over the abdomen; also a good deal of pain in the back. She complained of feeling cold. Pulse 120 and thready, temp. 101°. Although opiates soon relieved the sickness and diarrhœa, she died rather suddenly towards the morning.

"I was allowed to open the abdomen. Found peritoneum adhering in several places, and the whole of the intestines injected. No effusion. Per vaginam uterus was found to be retroflected as it was three years before, but quite movable, and no hardness surrounding it. Right ovary quite free, but the left was adherent to the bowel, &c., and could not be separated. Uterine canal three inches and a half in depth.

"The specimen shows a small interstitial fibroid situated on the anterior wall of the body of the uterus. The fundus was pointing downwards very markedly, which position it retained for some time after its removal from the body. She never had metrorrhagia."

The PRESIDENT (Dr. J. Matthews Duncan), then delivered his Inaugural Address.

INAUGURAL ADDRESS.

I HAVE great pleasure in thanking you for the very high honour you have conferred upon me by placing me in this chair, a position which has acquired biennial

increments of eminence from the well-deserved renown of the great physicians who have successively occupied it, and not least from that of our last president, Dr. Playfair, the author of valuable laborious monographs and of a popular text-book, an esteemed teacher, and a famous practitioner. We are grateful to him for the time and labour he has given us, and I can only hope to imitate him in these respects as well as in his urbanity and gentleness.

The best honours in medicine are conferred by professional brethren, our peers, who alone are competent judges, who alone, indeed, know us. But I dare not rate my present position without deeply feeling that, proportionate to the honour, are the responsibilities and the duties. To take my allotted share in the mere business of this great and prosperous Society is not a heavy undertaking, but the other and less prominent duties of my position are really onerous—to preside, to direct, to encourage, to repress; to do all this in the proper spirit and in a manner that cannot be misinterpreted. I shall try, in reliance on your generosity and kindness, and support, to keep unbroken the good reputation, as a Society, which we have hitherto maintained.

This Association has been, and continues to be, prosperous. Its membership is very numerous, its exchequer well replenished, its meetings well attended; above all, its proceedings are interesting, and its annual volume of 'Transactions' replete with valuable matter.

In the proceedings of our ordinary meetings we include addresses, discussions, demonstrations, papers. These last are various in character, narratives of experience, curious, or rare, or instructive cases, new remedies, new instruments, and the results of observation and research. In the council and in committees, besides the arrangement of business, much useful work is done of a political or semi-political kind; and I shall follow a precedent, which seems a good one, in devoting the few remarks I propose to make to some important and interesting political matters.

This Society has already interfered powerfully, and with advantage to the public interests, in various medico-political affairs; and there are some measures, especially that relating to the education and registration of midwives, which it has already done much to promote. In the present state of the conduct of legislation we can have little hope of success in Parliament unless we secure the approval and active operation of a Minister of State, and in this we should probably have no difficulty if we could make for the minister a quiet political bay in the busy and often turbulent session. We do not wish for our affairs the parliamentary prominence of party questions, and we have no means of quickly convincing our legislators of their very great importance. We have, therefore, reluctantly to submit to the patient waiting for a more convenient ministerial season, a time of which we at present see no immediate prospect.

Before proceeding, however, I must devote a few sentences to explain the kind of importance to be attached to the political proceedings of this Society. Their place in the first words I address to you might be supposed to indicate that the Society claims for them a position paramount; and this would be a very great mistake. The Society knows well that political interference is a mere accident of public utility arising from the position it has otherwise attained. The great work of this Society is not political. It is not initiated nor fostered by Ministers of State; and it would be fatal to our best interests to wait upon such uncongenial influence. Obstetrics and gynæcology have been advanced to their present eminence and power and usefulness exclusively by the labours of comparatively humble medical men. As it has hitherto been, so in the future it must be. If we look to the gradual progress of our department of medicine we observe little else than a series of scientific papers bearing the names of our obstetric heroes. A great practitioner, distinguished for learning, sagacity and power, may for a time maintain posthumous fame; but,

for the most part, practitioners and practices, books and instruments, have been lost in oblivion. Imperishable remain the small scientific papers that have taught us, and will teach all future medical students, the anatomy of the pelvis, the anatomy of the gravid uterus, the anatomy and physiology of the unimpregnated female, the mechanism of natural delivery, obstetric auscultation, obstetric anæsthesia, the mechanism of unnatural delivery, and others too numerous to mention here. The wisest judges of our Society will pay but scant attention to our political proceedings, and so also will our best members. The basis of our prosperity and greatness is the unobtrusive memoir embodying thought and work and recording distinct results; and we must admit that such papers are often dreary affairs as they are languidly read to benches not overfilled. The man who sends us such—generally a young man—must not be discouraged: his paper will command wide recognition; and, although worldly esteem and prosperity are but secondary objects in his view, his good work will be, as long as he lives, an increasing force tending to his promotion in these respects. It is enough to say of him, He was the author of that! This Society will pay due attention to its political work as it arises, but it must devote its best energies to its scientific work. With the amount and quality of this it may be pleased, even delighted, but it can never be satisfied. Scientific appetite and greed grow with the food supplied. Every new contribution widens the prospect and increases the demand for yet more.

Much interest has been and is now expressed and widely felt in the Improvement of the Medical Curriculum, and our department of the profession is indebted to our late President and to Dr. Macnaughton Jones for their enthusiastic advocacy of its claims. With especial force is it insisted that the course of midwifery lectures required by the corporations is inadequate, and while on this point there is, so far as I know, no difference of opinion, I am sure that, in the whole matter, we have the sympathy of

all men of progress. In considering it, the distinction should carefully be maintained between the theoretical and the practical, between what is desirable and what is feasible and attainable, and this is not always done. For instance, it is common to say that from every student there is or there should be required evidence of a thorough knowledge of this or of that, and, among others, of midwifery and the diseases of women and of newly-born children.

Now, it is only a very moderate amount of knowledge that is now or ever will be required ; and it is in vain to aim at more. It is not necessary to have experience at examining boards to get assurance of this ; for, after more than thirty years of unceasing study and practice, my own knowledge of the subjects is anything but thorough.

It is a moderate amount of elementary knowledge that is required of a candidate for licence, and he is expected, nay, in duty bound, to cultivate it so as to produce the maturity of a good general practitioner. Within a limit of forty lectures, it is impossible for the teacher to give a good introduction to the elements of his subject; and yet it is not to be forgotten that the best teacher is he who condenses most successfully ; who, knowing what is essential, what is of high importance, fixes on a well-arranged and, if possible, a consecutive series of facts and principles, and carefully indoctrinates his pupils in them. In any other sense a complete course is not desirable. Our lecturers should be neither schoolmasters nor grinders.

The history of teaching surely indicates that in this matter we shall, in due time, get what we want. If we are true to ourselves and increase the science, room will be found for the teaching of it. Our glorious ancestors, Smellie and William Hunter, taught midwifery and women's diseases from love of and respect for the subject, as those teachers do now who give far more than the curriculum requires ; and so it will always be. Smellie's and William Hunter's courses were not required by the licensing or analogous boards of their day, and they probably never reached the length of twenty lectures. We

have got far beyond this, having compulsory courses, which in some schools must reach one hundred lectures, compulsory actual practice of students, clinical teaching and lectures, and instruction in instrumental delivery.

In settling what should be our demands in respect of compulsory attendance on lectures, we must consider our position in relation to medicine proper and surgery proper. The solidarity of medicine, surgery, and midwifery is a popular and a true argument, and justifies our claim to equal honour and consideration for the three branches. But while this claim is now at length—thanks to the unaided achievements of obstetric science—undisputed, it does not follow as a consequence that equal time should be allotted to the teaching of the three departments. Medicine and surgery are each larger than our department. They were taught systematically before midwifery; and, as a result of this historical fact, their teaching embraces large and important subjects, such as the doctrines of inflammation and fever and injury; which, though obstetrical as much as they are medical or surgical, yet are not uselessly repeated in courses of midwifery, being left in those older departments of teaching to which ours is an addition.

But the points to be regarded in this somewhat complex subject are not exhausted. Time is short, and we must reflect on the age to which we would have a medical student's education prolonged. The curriculum requires a period of about four years, and is already so filled that more can scarcely be crammed into it. Without an extension of the curriculum to five years, it appears to me vain to hope for a thorough and fair rearrangement of the various times allotted to the various courses; and such an extension is a matter for very full consideration with a view to the interests, not of students only, but of the State also. It is not a mere mechanical question—so much time available, so much attendance on lectures possible; for it has been widely asserted, and with some show of reason, that our present extended curriculum is a failure, not only not

yielding results in proportion to the extension, but producing only increase of cram and dangerous pretence of knowledge. With this view I do not coincide, but it puts in a clear way the evils attendant on attempting too much. When we increase the curriculum we must consider not only the time available, the age to which the study should be prolonged, but also the digestive power of the average student's mind. The production of pedantry is to be shunned.

As members of this Society, we have observed with deep concern those discussions in the Medical Council which relate to the Place, in the education of our medical practitioners, accorded to Physics and Chemistry, and we cannot hesitate to express our sympathy with those who wish for these branches of science a paramount position among the not purely professional. For Greek or Latin we have no special occasion to contend, because the obstetrician or gynæcologist has never occasion to make use of them unless for some purely literary, not scientific or practical purpose. Although it may well be asked, what interest have the legal guardians of the education of our practitioners in Greek or Latin, it may, on the other hand, be confidently asserted that their place and power in the higher education of all men need no defenders nor supporters. These languages are not necessary for a medical practitioner, and this cannot be said of physics and chemistry. As obstetricians or gynæcologists we can neither comprehend what has been achieved in the past, nor can we have any hope of future progress without the aid of the latter. Latin and Greek may be said truly to have much the same place in higher general education as anatomy has in medical education, for through them pass the roots of our language, our philosophy, our arts, and our sciences. But while high culture cannot exist without Latin and Greek, excellent practitionership, such as the Medical Council has to care for, may flourish without them. Latin and Greek will always be studied by the highest class of medical men, and will always command an equiva-

lent return of power and influence, and even of the gross reward of money. Physics and chemistry must be studied by all good medical men, and knowledge of them is one guarantee of good practitionership.

Were this a proper occasion I might enter at length on the history and the present bearings of this important matter, but I shall confine myself to a very few historical remarks, which may encourage the supporters of what we regard as indisputably the best direction of medical legislation. Even anatomy was once in the insecure and neglected position in which physics and chemistry now are.

Although physics and chemistry are not depreciated or lightly esteemed, their supporters have still to struggle to secure for them their proper place; and medical history points surely to their still further rising importance in medical education. The problem was well understood and the conflict stoutly maintained a century ago, and the too successful ringleader then was the great Stahl, who, while he despised and opposed anatomy, fought ardently against the introduction into medicine of mechanical and dynamical theories; and, upon the whole, Stahl gained the day, that is, he, in this matter, carried with him the majority of great medical men. Truth, however, is invincible, and in spite of Stahl and his followers, opposition to mechanical, chemical, and dynamical theories has gradually become less and less till now the whole of the psychical school is extinct or survives in defence of the comparatively very narrow influence of what are now called vitalist doctrines. Of these profound doctrines and of their great supporters we speak only with unqualified respect. Their existence and extensive power, as now exercised, are in no manner a protest against the great and due influence of physics and chemistry.

So great has been the progress of physical, chemical, and dynamical theories in obstetrics, and in the other branches of medicine in our own days, that it is necessary still further to explain historically the reluctance, even now,

to admit their rising power and utility. Most of us here—at least most of those who have even a few grey hairs—and most of the members of our Medical Council, were reared under the potent empire, not of Stahl, but of theories more or less exclusively metaphysical like his. Not a few of us imbibed our first lessons in medical science at the feet of the venerated Alison, the greatest medical philosopher of his day; and as we love the memory of the man we are slow to disparage any part of his teaching. Yet his teaching, that is, what was instilled into us so recently, is already so obsolete in kind, though not antiquated by mere lapse of time, that you will scarcely believe that these are his words. "When we compare (says he) the general notions as to medical science which are prevalent at the present day with those which are recapitulated by Dr. Cullen in the introduction to the last edition of his 'First Lines,' as holding their place, up to his time, in the schools of medicine, the most important observation that occurs to the mind is the present general, although not always avowed, recognition of this principle, that the phenomena of disease, like all other phenomena of living bodies, belong to a class of facts, and constitute a subject of investigation, altogether distinct from those which are presented by any forms or changes of inanimate matter. Dr. Cullen states that the mechanical philosophy had been applied (soon after the discovery of the circulation) towards explaining the phenomena of the animal economy, and continued till very lately to be the fashionable mode of reasoning on the subject; and he very properly admits that it must 'still in some respects continue to be applied,' but he adds that 'it would be easy to show that it neither could, nor ever can be, applied to any great extent in explaining the animal economy. Now, an important step (Alison continues) has been already made in the progress of medical science, when this proposition has received the general assent of the profession, and when the study of mechanical philosophy is recommended to the student of medicine, not as one of the

foundations of medical science (with the exception of a few simple applications of its principles in some parts of physiology), but simply as an example of successful investigation. A nearly similar observation may be extended to the subject of chemistry; for although it be true that all vital actions are attended by, and in part dependent on, a series of continual chemical changes, and although a certain knowledge of chemical principles is therefore required of the physiologist, yet the chemical changes of animated nature are as distinct from those which we produce at pleasure in dead matter, as the stimulation by nerves and the contraction of muscles are distinct from any of the principles and powers of mechanics."

If physics and chemistry were in this slighted state forty years ago and have now risen to jostle Greek and Latin in their time-honoured places, what may we not expect from the progress of science within another forty years? There is no reasonable doubt of their growing into pre-eminence, and it is to be hoped they will not treat rudely the study of those languages which are the favourites of all that are scholastically disposed. For physics and chemistry we ask no favour, only justice, at the hands of the Medical Council.

The Registration of Disease is, as you are aware, making great progress in isolated parts of the country, and its universal adoption may be expected in no long time. Before this time comes, imperial legislation may compel it; and it is almost certain that further legislation with a view to prophylaxis will be a valuable fruit of the increased knowledge provided by the system. There are many ways in which such prophylactic legislation may interest us; and it is in the highest degree imperative to prepare for it and to watch it, so as to have the laws wisely framed for the public good. Puerperal fever will, no doubt, be the chief class of diseases in our department for prophylactic legislation; and it may be expected that we shall be able to give decided testimony as to the value of our plans. Antiseptic cares are already in some parts of

Germany required by law or recommended to midwives by those who have a legal right to command them; and it is to be remembered that, in that country, almost the whole of midwifery is in the hands of midwives.

It is evident that, in this country, we have been passing through a period of alarm, allied to panic, arising from newly-acquired knowledge of the greatness of the evil and ignorance of its nature and mode of propagation. This prolonged panic has naturally led to extravagant views and to grave injustice especially to midwives and to hospitals. Obstetric science is gradually disclosing the nature and prevalence of the diseases classed under the name of puerperal fever, and this work has been done chiefly under the guidance of those antiseptic theories which have produced such grand results in medicine and surgery as well as in midwifery. It is to antiseptic theories also that we owe our most trusted resources in practice, resources whose value is demonstrated beyond all doubt, and which will soon, I believe, be so generally adopted as to command the consideration of those interested in prophylactic legislation.

But I wish, at this early time, to put in a plea for another prophylaxis, the Legislative Protection from Syphilis especially of women about to be married and of doctors. It is not rare to meet with instances of carelessness, on the part of bridegrooms, so gross as to merit the imputation of criminality; innocent women being, as a result, infected with syphilis and thereby killed or maimed for life, and their offspring in a like terrible plight. No doubt such tragedies are sometimes enacted in spite of due care on the part of the husband; but many are the result of culpable thoughtlessness or culpable neglect. Again, in my own medical circle I have lost, through accidental surgical infection with syphilis, several medical brethren whose lives were very valuable. One of them, an accoucheur, did not survive attendance on a syphilitic lying-in woman above a year and a half. Now, it appears to me that such proceedings as the marriage of

a man who knows he has recent and active syphilitic disease should be taken cognizance of by the law and regarded as a crime, not much less grave than manslaughter; and the same is true of such proceedings as that of a lying-in woman who, knowing she has syphilitic sores on her pudendum, fails to warn her accoucheur of the circumstance. Disease and death, coming in this deliberately careless way, rarely involve not less horrible and heinous criminality than any other offence.

The Education of Women for the important profession of midwifery has long been carried on, in many quarters, in these countries, with more or less of completeness, and with very good results. It had been and is the custom to give to pupils a course of lectures, and to require practical instruction and some experience before conferring a diploma or certificate of competency to manage ordinary natural labour and puerperal state. Nearly ten years ago, this Society prescribed a modest curriculum for pupil midwives, and established an examination to test their attainments with a view to granting a diploma to such as gave satisfaction to the Society's examining board. This good scheme has had an encouraging amount of success, the numbers passing in each year, from 1872 to 1880 inclusive, being 6, 11, 4, 2, 3, 4, 5, 12, 22. But this does not satisfy us. We want a recognised legal position, chiefly registration, for graduates, and we desire a great increase of the numbers taught and seeking our diploma.

In some foreign countries, to which we look as examples for consideration rather than imitation, the education, registration, and regulation of midwives has long been carried on with apparent satisfaction to all parties. You all know the text-books for midwives issued under Government auspices in Germany. I have brought with me the book of the rules of midwifery service in the Kingdom of Wurtemburg, issued by authority of the Minister of the Interior. I also show you the remarkably cheap, handy, and useful obstetric bag which is recom-

mended to midwives in that kingdom. Foreign obstetric conditions are, as I have already said, very different from those of the United Kingdom, and of course the Government arrangements are not exactly what we should desire for our country, with its limited employment of midwives, and what we consider the freer spirit of our laws.

Our examination system has recently been extended by the Society empowering its honorary local secretaries to conduct the written examination. This diminishes the expenses of candidates by reducing greatly the number of days spent in London; a single day for *vivâ voce* examination being now sufficient.

That this widening of the area of easy working of our midwifery system is a good proceeding I have no doubt. Indeed, the improvement and extension of the practice of ordinary midwifery by women is a most desirable object. Many people still living remember the time when the whole of this practice was in female hands. It was taken from them not by the other sex because they were male, but in consequence of their superior education and scientific attainments. Science overthrew all the prejudice against man-midwifery, and this was not a small matter, for authority as well as prejudice were, at one time, so strong on the side of women as to bring Dr. Wertt to be burned at the stake for attending a woman in labour. If women are to be reinstated in the practice of midwifery, whether in unnatural or in natural labour, it is education and science alone that can do it, and women may be sure that these are irresistible. Meantime we are interested only in the extension of women's usefulness in ordinary cases, natural or nearly natural; and our object is to secure for the public a class of such women, reliable because duly qualified. The gain to the greatest number will be considerable, for the service of midwives is of course got at a less rate than that of fully educated practitioners, whether male or female. Besides, such fully educated practitioners are gainers, for their time and health are so valuable and rapidly increasing in value, as to make

it a very hard struggle to do full justice to their cases. Every one knows how necessary patience and long waiting are for the performance of midwifery duty; and no one is proof against the bias given by impulses of time and health. The more extensive employment of midwives will greatly improve the care of the poorest and largest class. Such women are comparatively easily remunerated; they go to their cases unembarrassed by other important and pressing engagements; and they expect, without regard to the nature of the case, to have a stay greatly longer than is anticipated by the fully qualified practitioner. Against advantages there are no doubt disadvantages, and here, as in innumerable other difficulties, we make the best attainable compromise.

We have, naturally, been disappointed at the political delay of our scheme for the education and registration of midwives; but we are not discouraged, because we have no active opposition, and the urgency of the matter is daily increasing. Indeed, if we consider the gradual growth and progress of all such schemes in this country, and the still only partially developed state of our own midwives' arrangements, we may even assume that the delay does not involve loss of time, but will add, when the proper opportunity comes, irresistible force to our appeal to the Government.

We shall, no doubt, carry with us the sympathy, we hope also the active support, of the Medical Council. This medical parliament, embodying as it does the political knowledge and experience of the profession, will surely do its duty by us; for it has hitherto shown itself wisely zealous for the interests of the public, not hesitating, after due consideration, to go beyond its chartered duties when such interests pointed the course.

The presence in the Council of an Obstetric Member has never been indispensible, yet always desirable; and the deficiency of such a member has been keenly felt, and, of course, most by us whose interests are especially dear to ourselves. When the education and registration of mid-

wives comes within the range of practical politics, we trust an obstetric member, or obstetric members, will be in the Council to give aid.

On the death of Dr. Hudson, your Council seized the opportunity to memorialise the Government with a view to the filling of the vacant place by an obstetrician, and I am happy to tell you we have gained our end, for I have a letter from the Lord President of the Council, assuring me that the wishes of the Society will be carried out.

You are all well aware of the preparations that are being diligently carried on for the Meeting of the International Medical Congress in the Metropolis in August, and, no doubt, take especial interest in that part of it called the Section of Obstetric Medicine and Surgery. The general and executive committees of the Congress have nominated for the Section a president, vice-presidents, council, and secretaries, embracing a large number of distinguished physicians, whose names will certainly command the confidence and respect of our brethren both at home and abroad.

The importance and usefulness of such meetings as this call for no remarks, for their very existence is, in itself, almost a sufficient demonstration of them. We are living in an epoch of great development of scientific parliaments, and no one dares to predict, though he may rejoice to anticipate, to what good result this will lead. Scientific societies have flourished in great towns ever since the revival of learning. National scientific meetings have been regularly established only within our own times, or are being established now. But this kind of progress may be said to proceed in a sort of geometrical ratio. Political conferences are of comparatively old date, and have only a remote analogy with scientific congresses; but the great industrial exhibition of 1851 no doubt offers a striking resemblance to our Medical Congress, and it inaugurated an era of international activity, laden with many peaceful blessings.

Our own Society was started only twenty years ago; it had no perceptible period of infancy or adolescence, but from the first bore the appearance and produced the fruits of a mature association. Its founders had, in their sound judgment, justly estimated what was wanted; for, accordingly, our Society has supplied the want and has prospered. It was not enough to have occasional allotted portions of the meetings of the Royal Medical and Chirurgical Society, and a few papers in its annual volume of 'Transactions.' Obstetrics and gynæcology had commenced rapidly to grow not only in bulk but also in philosophic elaboration. The metropolis required monthly meetings devoted entirely to the subject of our practice and study; and this activity is represented not by a few papers of observation in the 'Medico-Chirurgical Transactions,' but by an annual obstetrical volume, rich not in mere observations and dogmatism, but also in speculation, experiment, and research. Under the auspices of the British Medical Association we have a great annual national Medical Congress which, not many years ago, began to have a special obstetric section. But already all this is not enough. Professional brotherhood, the jostling of co-operating intellects, the comparison of results in practice, are increasingly exigent. Meetings in all great towns, and national meetings, do not supply the demand, and now, for the first time, a cosmopolitan Obstetric Congress will be held in the greatest city of the world. It is not enough to anticipate or wish for great results of this August meeting. We must contribute to its success according to our opportunity and ability, and every one of us can contribute something, if only contagious enthusiasm, or mere sympathetic bodily presence.

Accoucheurs and gynæcologists are generally styled, or style themselves, Physicians; but they are as much surgeons as physicians, and indeed a great authority has recently asserted, *ex cathedrâ*, that they are more surgical than medical. I do not think so, and, curiously enough, the great authority, although President of the Irish

College of Surgeons, is himself an illustrious example of the preponderance of the medical element. Truth to tell, our department is like medicine in general, divided into two friendly co-operating camps, the medical and the surgical, and each man is driven into either or remains mongrel according to his special genius. Most begin by affecting the simpler and in many respects easier line of surgery, but most end with the conviction that they have not the rare surgical genius. At present the strong currents in obstetrics and gynæcology are rushing in the surgical direction, and too strongly so in the opinion of many intelligent observers. But it is foolish to deprecate this progress and vain to attempt to change it. The unknown laws of the growth of our departments of science and practice are not to be bent according to our short-sightedness to suit our views. The present surgical wave is undoubtedly doing good, and we cannot avoid its sweep, although we might wish it were less strong or had its medical equivalent. Accordingly, in the international obstetric programme it will be found that, for this year at least, surgery is paramount, yet not drowning far less excluding medicine. There is, indeed, still plenty of sectional time and space for medicine to occupy and reassert its preponderance over surgery. The authorities of the Congress invite you, as well as foreigners, to come forward with such results of observation, experiment, and research, as you may have to offer for the consideration of the cosmopolitan assemblage of brethren who will have come for this purpose from all parts of the world. Every student is aware of the considerable differences that exist among the nations in their mode of describing and discussing the same obstetrical and gynæcological matters. This is well illustrated by text-books. A German or French manual, even if undoubtedly far superior to an English one, cannot be made by clever translation to take its place. The foreign work does not fit into our literary system, and it proves valuable, chiefly by being mentally

assimilated by British readers, and thus made part and parcel of our historical British literary development. If the differences among British obstetricians are enough to give a varied interest and instructiveness to our meetings here, how much more of striking and useful variation may we look for in an International Congress. We may expect to get, not only original and new instruction, but to be edified by having old things shown us in a new light.

To conclude, gentlemen, while in medical politics this Society is working for the good of others, each member has to consider how he can make the Society itself greater, and himself more useful through it; and his spirit should be that of the happy warrior—

> "Who, if he rise to station of command,
> Rises by open means; and there will stand
> On honourable terms or else retire;
> Who comprehends his trust, and to the same
> Keeps faithful with a singleness of aim;
> And therefore does not stoop, nor lie in wait
> For wealth or honour, or for worldly state;
> Whom they must follow; on whose head must fall,
> Like showers of manna, if they come at all."

A vote of thanks to the President for his interesting address was proposed by Dr. Robert Barnes, seconded by Mr. Spencer Wells, and carried with acclamation.

ON THE SO-CALLED "MISSED LABOUR," WITH A CASE IN ILLUSTRATION.

By Robert Barnes, M.D.,
OBSTETRIC PHYSICIAN TO ST. GEORGE'S HOSPITAL.

Before entering upon the discussion of the subject of "Missed Labours," it is necessary to define what is meant by this term. It was first used by Oldham, and it has become classic, but its scope is not well defined. Under the title "missed labour," cases differing widely

in nature have been included. This looseness of classification is the expression of the uncertain state of science in what relates to the retention of the fœtus under different circumstances. When these circumstances and the histories of the presumed cases of "missed labour" are subjected to rigid criticism, the question will be forced upon us: whether after all such a thing in strict meaning as "missed labour" in the sense implied by Oldham has been proved to exist. Oldham's proposition was that a fœtus might reach its full development in the uterus, and, living at the full time of gestation, a distinct parturient effort might be manifested and pass off, the fœtus being retained for a considerable time longer in the uterus. I think we have still to wait for a case in proof. Certainly, Dr. Oldham's case is not such a one. The minute examination of the parts made by Dr. Wilks proves that it was a case of extra-uterine fœtation, in which the bones of the fœtus had made a way through a fistulous track from an extra-uterine cyst into the uterus.

In this sense, then, the term "missed labour," seemingly so happy, and which has so fascinated the minds of obstetrists, is bereft of meaning. If the term is to be retained, it must be applied to cases of a different nature.

Nor is the statement of McClintock[1] free from ambiguity. He says: "The term "missed labour" has been applied to a class of cases of uterine pregnancy in which, through failure of parturient action, the fœtus is retained for some indefinite period beyond the term of natural gestation. In every instance the fœtus has apparently been dead at the time when labour should have taken place, and the waters of the ovum have generally been discharged about this epoch or previously." He goes on to say that "cases of missed labour are amongst the very rarest in obstetric practice;" and then relates, with all his well-known care and sagacity, "the history of a case of this kind." I cite the summary of it in McClintock's words: "The subject of it had given birth to twelve

[1] Dublin Obstetrical Society, 1864.

living children, then to a dead child at full term, soon after which she conceived for the fourteenth and last time. On this occasion gestation proceeded naturally till about the seventh month when symptoms occurred leading her to believe, and rightly, so far as I can judge, that the fœtus died at this time. Nevertheless, pregnancy went on to the end of the ninth month, when, exactly at the expected time, pains like those of commencing labour set in, and there was some discharge of blood and water. These symptoms of labour soon passed away, and pregnancy went on without any unusual circumstance for *five weeks* longer. She was then seized with severe pains, that she described as labour pains, which continued for two days without cessation. A very experienced practitioner found her suffering under hæmorrhage and great pain, and discovered a bone in the vagina, which he removed, and which proved to be a fœtal rib," Fetid discharge went on, and McClintock proceeded to remove the remains of the fœtus. This was done at several sittings after dilating the cervix uteri by tents. On one occasion Dr. Hardy, "with much trouble, extracted two long bones, like a femur and humerus, *which seemed to have been partially embedded in the tissue of the uterus.*" These operations were carried out sixteen months after the attempted labour. The woman died under symptoms of septicæmic peritonitis. No autopsy was made. This is much to be regretted. Autopsy might have averted the doubt that arises whether this case, too, like Oldham's, might not have been one of extra-uterine gestation. And recovery might, as in my case presently to be related, have permitted further observations to be made on the uterus and surrounding parts when cleared of the pregnancy. Müller,[1] in a valuable memoir, has subjected most of the recorded cases to a keen analysis. He insists that this case was in all probability one of extra-uterine gestation. Independently of the confidence which

[1] 'De la grossesse utérine prolongée indéfiniment, "missed labour" des Anglais,' par Dr. E. Müller, Paris, 1878.

McClintock's authority inspires, basing upon some points in the history of his case, and upon the history of the case which I shall presently relate, I cannot unreservedly share the opinion of Müller. I think it will appear that whilst we have still to find an unequivocal case of prolonged retention of a fœtus *in utero* which had lived until the full term of gestation, we cannot deny the possibility of the prolonged retention *in utero* of a fœtus which had perished some time before the natural term of gestation. And this is McClintock's contention. The other cases McClintock cites: as Montgomery's, Cheston's, Dewees', Nebelin's, Schultze's, von Dorfer's, Caldwell's, Voigtel's, all, I think, melt away into instances of extra-uterine gestation under Müller's searching analysis.

The hypothesis of missed labour, then, brings us face to face with the following problems:

1. Can the *fœtus living at term* be indefinitely retained in the uterus?

2. Can the *fœtus dying some time before* term be indefinitely retained in the uterus? And linked with these problems there come the questions:—What is the normal duration of gestation? What is the cause of labour?

Since these problems will receive some illustration, if not their solution, from the case which forms the motive of this memoir, it will be convenient to relate the case here.

A lady came to me from Penang under the doubtful impression that she was suffering from uterine tumours. The history down to the time of her coming under my care is condensed from the statement of Dr. Veitch.

Mrs. B—, æt. 39, had borne three stillborn children, the last of them five years before consulting Dr. Veitch at the end of December, 1872. At this date she stated that the catamenia had ceased since the early part of October, up to which time she had been quite regular and in good health. The cessation of the catamenia was followed by morning sickness, lassitude, repugnance to certain articles of food; the breasts increased in size as well as the abdo-

men. Between the third and fourth months she distinctly felt "quickening." After the 18th June, Surgeon-Major O'Halloran attended for Dr. Veitch, and gave him the following account:—Up to the seventh month Mrs. B— felt what she took to be the movements of the child. About the eighth month she had a slight accident on stepping into her carriage, but this Dr. Veitch thought had no injurious effect. Between the eighth and ninth months there was a flow of blood from the vagina, and labour was supposed to have commenced; no labour-pains however set in, and on examination the uterus could scarcely be reached by the finger; the os was found undilated, but softer and more flaccid than normal. Under rest and use of cold and styptics the hæmorrhage ceased in a few days. At the end of three weeks bleeding returned to a very considerable extent; still no labour-pains. Iced enemata were used; tannic acid was found most useful in checking the discharge. At the end of a week the discharge was lighter, and then gradually disappeared. Auscultation revealed no sounds. Early in September, that is, eleven months from the presumed date of conception, Dr. Veitch examined with the same result. The uterus as felt through the abdominal walls appeared to be smaller, rounder, and harder than is usual in pregnancy. Moreover, there was an irregularity to be felt in the body of the uterus, more particularly on the left side. The mouth of the womb could scarcely be reached, but as far as Dr. Veitch could discover it was soft, doughy, yielding to the touch. Throughout all the patient's general health and appetite had been good, except for about ten days, when her appetite failed in consequence of the emotion caused by her having been informed that it was necessary she should proceed to Europe for change of air and further advice. She was of an extremely nervous temperament, easily cast down. This mental disturbance brought on a return of hæmorrhage, but in a slight degree. Three weeks later, in consequence apparently of a slight disappointment, she had another "return of hæmorrhage."

Mrs. B— came under my care in December, 1873. On the 30th the uterus was felt rising as high as the umbilicus, very hard; its walls gave the impression of being very thick. It thus simulated fibroid tumour, for which, in fact, it had been taken. Under chloroform, the cervix having been previously dilated by laminaria tents, I thought I could touch the whole interior surface of the uterus; everywhere it felt smooth; the sound passed six inches. In January, 1874, she wore an abdominal belt with comfort; some coloured discharge went on, but not to the extent of flooding. At the end of January pieces of bone, which turned out to be bits of spinal column, came away day by day. Having partially dilated the cervix by laminaria tents simply, and in faggots on the 23rd January, I took away by finger and forceps three more bits of bone from inside the cervix. The uterus at this time still rose as high as the umbilicus. Mr. Spencer Wells now saw her with me. We both felt the compressed fœtal mass with bones on the surface inside the cavity of the uterus proper.

Offensive discharge continued to flow for some days. In February, under chloroform, and aided by Dr. Fancourt Barnes, I proceeded to empty the uterus. The fœtus was removed with great difficulty, owing to the rigid state of the cervix, which had yielded imperfectly to the action of tents. The hand could not be got through the cervix, so I extracted, by my craniotomy forceps, the fœtus. The fœtus was a compressed mass, bones emerging on surface, the fleshy part greasy, soft, and putrid. It presented the appearance of having reached the eighth or ninth month of gestation. The patient showed considerable prostration after the operation. She had rallied next day. She had daily injections, intra-uterine, of chlorozone.

On the 2nd March she was much better. Shreds of placenta came away daily; the abdomen became more flaccid and not tender to touch; the fundus of the uterus was felt about midway between symphysis and umbilicus, and the discharge became less offensive. The general

state improved daily. The cervix remained open, the uterus contracting slowly and gradually. On the 10th March the uterus measured five inches from the os externum, the point of the sound being felt at the fundus through the abdominal wall. For some days more shreds of placenta continued to come away on injecting.

She went to Brighton, and in May the uterus had recovered its normal bulk and other normal conditions. She returned to Penang, whence I heard that she was in enjoyment of good health. Menstruation had returned.

Appreciation.—To construct a theory which shall bind all the ascertained facts into a consistent history free from dispute is perhaps impossible. One thing, however, is certain to my mind, namely, that I removed the fœtus from the cavity of the uterus. I several times had my fingers through the cervix and, by external pressure, I could feel them against the fundus in the uterine cavity. I traced the gradual contraction of the organ after emptying it down to the normal state of the non-pregnant uterus. This was done by the combined use of the sound and palpation. It must, then, be assumed that it was a case of intra-uterine gestation, and not one of ectopic gestation, the fœtus making its way by ulceration from a sac outside the uterus into the uterus or cervix. An important point to determine is the age at which the fœtus perished. The best evidence is given by the development of the fœtus. This pointed to at least eight months, and this would tally with the history. The catamenia ceased in October, 1872, early; this was followed by the usual signs of pregnancy. This, then, is a fair presumptive departure for the pregnancy. This date is confirmed, so far as subjective phenomena can be relied upon, by the patient's account of "quickening" between three and four months later, and her feeling the movements of the child at the end of seven months. Then came the slight accident at the end of eight months, and a little later the flow of blood and the softer condition of the os uteri. Was this an attempt at labour? There were no labour pains,

thesis still lacks verification by anatomy. It requires systematic research by experiment, and this research I hope one day to carry out, should opportunity be given me, in some other land where the mediæval hatred of science is extinct or suppressed, where barriers are not set against the pursuit of knowledge under the dictation of that barbarous instinct, ever craving for something to persecute, which springs from the uncontrolled play of the baser part of man's nervous system, that is, of its reflex and emotional elements.

The correlated question—What is the natural period of gestation? involves the vexed question of protracted live gestation, and this has a more direct bearing upon the hypothesis of missed labour. I must, however, now be content with observing that with the progress of physiology the hypothesis of protracted gestation is crumbling away. The cases of supposed protracted gestation of live children resolve themselves for the most part into errors of calculation, the dates of insemination and fertilisation of the ovum being confounded, and many other sources of fallacy surrounding them.

Without, then, absolutely denying the possibility of a living child being carried for a brief period beyond the ordinary time of 270 to 280 days, still, granting such a case, it could not be used as evidence in favour of the hypothesis of missed labour.

The question as to the retention of a fœtus dead before term *in utero* is a totally distinct question, and it has even more intimate relation to the hypothesis of missed labour. Stoltz* meets the proposition that a fœtus dying before term may be retained *in utero* for an indefinite time with a denial as absolute as he does the theory of protracted gestation of a live child. This dwelling, he says, for an indefinite time of the ovum in the body has given rise to the hypothesis of protracted gestation, much in vogue, in past centuries especially, so long as extra-

* [illegible] "Nouveau Dictionnaire de Médecine et de Chirurgie [illegible]

uterine gestation was denied. Thus, Quentin Thyvenin, 1639, argued the thesis, "An fœtus in tuba uteri generari possit? negat."; Ant. Ruffin, 1658, "An homo extra-uterum gigni potest? negat."; and Lemercier, 1667, "Ergo potest infans per plures annos in utero matris, ejusque tubis, sana superstite muliere conservari." So, starting with the dictum that extra-uterine gestation was impossible, and having to explain the undoubted cases of retention of the fœtus in the mother for periods exceeding the natural term of gestation, there was no resource but to affirm the doctrine of protracted uterine gestation. The logic might pass, if the first term of the syllogism were not a simple denial of the truth. Still this erroneous opinion prevailed for some time longer. Indeed, it may be said still to survive in some of the recent cases related as instances of missed labour.

But since it has been known that conception may take place outside the uterus, that a gestation may ensue, and that this gestation may in certain cases reach the ordinary term, but that expulsion cannot take place, we have solved the mystery of prolonged gestations. From this moment examples of protracted uterine gestation have become extremely rare. This is the conclusion of Stoltz and Müller, and it seems to me incontestable in so far as it applies to the prolonged retention of a fœtus that had maintained life until the fulness of the natural term of gestation. But these authorities go further and doubt the possibility of prolonged retention of a prematurely dead fœtus *in utero*. They say that most physiologists have begun to share this doubt. The case which forms the basis of this paper is, I believe, one of retention in utero of a fœtus dying prematurely, but in all probability at a viable age. In so far it approaches the realisation of the idea of missed labour. Presently I shall recur to the points which appear to establish the truth of this interpretation. But there is another class of cases, not so rare, that demands consideration. I refer to the cases where the embryo dies at a præ-viable age and is retained

for a time after its death. These Stoltz calls examples of "internal abortion." The term is valuable. They might also be called cases of "concealed or occult abortion." The abortion is effected in all but the expulsion. How long may this be delayed? What becomes of the fœtus dying before term and retained in the uterine cavity? Can it be absorbed all except the bones? This is extremely doubtful. Can it be converted into a litho-pædion? Cruveilhier says emphatically: "Je crois pouvoir dire que les fœtus pétrifiés n'occupent jamais la cavité utérine." Admitting this, we must exclude from this discussion on missed labour all the cases of litho-pædion which have been cited as examples of protracted uterine gestation. Roederer's proposition*: "In ipso etiam utero fœtus quandoque in lithopædion durescit" represents the belief of a bygone age. Can the fœtus dead *in utero* undergo adipocerous or fatty conversion? My case seems to prove the affirmative. After a time a slow form of decomposition takes place, the soft parts melt down, partly liquefy, partly break down in shreds, and the bones bared separate. The soft parts are disposed of slowly, the liquefied parts and shreds may be discharged by the cervix uteri and vagina, some degree of absorption taking place, as is made evident by the signs of toxæmia which arise during the process of elimination. Probably the access of a little air is necessary for this process.

There is a class of cases, of which the oft-cited one of Dr. Menzies† is a type, in which the dead embryo is retained *in utero* owing to disease, in Dr. Menzies' case, malignant disease of the cervical-portion. But it cannot be maintained that this case proves the reality of missed labour.

There is one condition under which a fœtus dead prematurely may certainly be retained *in utero* for several months. The cases of twins, in which one fœtus is killed

* 'Elementa artis obstetr.,' 1759.

† 'Glasgow Med. Journ.,' 1853.

under compression by the stronger one, are now well understood. No one can misinterpret the beautiful drawing in Cruveilhier, which represents a mummified fœtus of an early stage of development attached to an atrophied placenta, together with a full-grown live child attached to a healthy placenta. Several museums now contain similar examples. These cases, at one time taken as examples of superfœtation, afford another proof how apparent departure from established laws have been brought back within their bounds as science has advanced. In these cases the mummified fœtus and its placenta undergo a fatty or adipocerous transformation.

I need but refer in this connection to those cases of retention of the membranes for some months after the death and expulsion of the embryo at an early stage. These cases fall within the history of so-called moles or degenerations of the placenta. Mole pregnancy presents many points of similitude with that of uterine fibroids and polypi. The uterus behaves in a similar manner, tolerating the parasitic body more or less, until sometimes efforts at expulsion are made under the recurring menstrual epochs.

This question is closely related to the history of "missed labour." Is there a determinate time for the retention of a dead embryo in the womb? This question is by no means of easy solution. Some years ago I devoted some time to the study of this point. Examining the cases in point which had come under my own observation, and those which research into the writings of others afforded, I came to the provisional conclusion that the ordinary time for which the uterus endured the presence of a dead embryo might be stated at three weeks. It is obviously difficult in most instances to define the date at which the embryo perished; and estimates of this kind are open to other fallacies. In defect of positive evidence, it is wiser to repose upon the uniformity of the laws of nature. Müller collects cases of retention of ovum of early date at death.

Fabbri, of Bologna,* collected cases in illustration. But Müller observes upon them that the author understood by "missed labour" the death of the fœtus in the mother, and its retention for a shorter or longer time in the uterus. This is what Stoltz called "*internal abortion.*"

The physiological process would seem to be this :—The embryo perishes, from whatever cause, that moment, developmental work ceases, the current of blood and attendant nutrition are turned off from the uterus, and involution sets in. Now, involution takes place in a month or less, I believe under ordinary conditions in three weeks or less in cases of abortion. This process complete, the walls of the uterus press upon the embryo and expulsion takes place. Expulsion probably takes place in most cases whilst the muscular property of the uterus is still active, that is, earlier than three weeks. The ultimate determining factor of expulsion is probably the same as that in normal labour, that is, a menstrual nisus. In cases where this process does not put an end to the retention, then comes the phenomenon often observed in ectopic† gestations, also of uterine effort at the normal term of gestation.

The contention, then, of Stoltz and Müller that an aborted ovum cannot be retained beyond the normal term of gestation, and that it cannot be converted into adipocere, seems to be untenable.

An appeal has been made to comparative physiology to throw the light of analogical argument upon this question. Sheep and cows have been said to be subject to missed labour; and since their parturient history is specially open to accurate observation, we might fairly expect

* "Del parto pretermesso o mancato nei bruti domestici e nella specie umana," 'Memor. dell Accad. delle Scienze di Bologna,' 1866.

† Some years ago (see 'Diseases of Women') I proposed to substitute the term "ectopic gestation" for "extra-uterine gestation" as being at once more comprehensive and accurate. For example, gestation in the uterine wall, the so-called "interstitial" form, cannot in strictness be called "extra-uterine," but it is "ectopic."

definite information from this source. Intelligent attention directed to the subject could hardly fail to yield valuable facts. A singular example came under my knowledge. A gentleman who indulged a passion for breeding had a cow which had "missed her labour." Mr. Hawkin, surgeon, then practising at Reigate, suggested that my hydrostatic bags might be applied to the benefit of the disappointed mother and her owner. A modification adapted to the purpose was contrived by the Messrs. Weiss, and a compressed dead fœtus of about full development was extracted. But the cow did not, I understand, ever conceive afterwards.

C. G. Carus, in elaborate memoirs,* supported the hypothesis of prolonged uterine gestation in woman, as well as in the lower animals. But his arguments can hardly stand against a critical examination of his facts.

McClintock, in his 'Further Observation on Missed Labours,'† publishes some interesting histories. I will not lengthen this paper by reciting them, I will merely observe that they appear to be instances of the prolonged retention of a fœtus that had died before term.

There are two very interesting specimens in the Museum of St. Bartholomew's Hospital. The first is No. 3067, new catalogue, described as follows:—"The uterus of a sheep, containing a retained fœtus, dried up and shrivelling. The ewe when killed stated to be in good condition. She had not brought forth the preceding season, six months before, and it was supposed she had warped her lamb." This also is in all probability an instance of retention of a fœtus dead before term.

The other case, No. 3069, new catalogue, was presented by Dr. Matthews Duncan. It is thus described:—"Lithopædion Calf, from the Earl of Southesk's 'Esme-

* "Zur Lehre von Schwangerschaft und Geburt. phys. pathol. und therapeut. Abhandlungen mit besonderes Hinsicht auf Vergleichende Beobachtungen an den Thieren," 1822. "Von zu lange dauernden Schwangerschaften in der Gebärmutter u. von der Verzehung der Frucht durch den Uterus," 1824.

† 'Dublin Quarterly Journal of Medicine,' 1864.

ralda.' She was served July 7th, 1865, had rinderpest in December of the same year. Being supposed to have become sterile, she was fattened, and this process led to slow expulsion of the calf, which was completed in October, 1867, without anything like labour."

In this case also the fœtus probably perished before the natural term of gestation. Most likely it died under the influence of the rinderpest which attacked the mother about six months after conception. Dr. Duncan informs me that the cow was never again put to the bull, so that the interesting question as to the possibility of recovery of fertility was not tested.

The term "lithopædion calf" seems open to objection. Examination of the specimen does not reveal evidence of the calcareous change which is the essential characteristic of the "lithopædion." It is desirable to limit the term to cases in which this change has taken place. The specimen in question forms no exception to Cruveilhier's proposition that petrified fœtuses are never found in the uterus.

For the present, then, I am inclined to the opinion that the history of "missed labour" in the ewe and cow will be found to coincide very closely with what we know precisely of the history in woman, that is, that the cases of presumed labour of a living fœtus at term are really cases of retention of a fœtus dead before term.

McClintock, in his 'Further Observations' already cited, brings forward other cases reported to him. The details of one—that of Dr. Burden—are too meagre to form the basis of precise conclusions. The next case—that of Dr. Carson—is peculiar. "A woman came to the Anglesea Lying-in Hospital in the first stage of labour with her first child, at the completion of the ninth month. (In this state she was violently attacked by her drunken husband.) She complained of being injured in the abdominal region; her pains ceased, and the infant no longer exhibited any signs of life. She remained a few days in the house, and then went home. She returned in two

months in strong labour. The smell of the air which escaped from the vagina was most offensive. Fifty-three hours later she was delivered by forceps of a decomposed child. This was so blown up with air as to increase the size of the body to an enormous extent, which increased size had rendered the labour so tedious."

May we conjecture that the violence inflicted killed the child and paralysed the uterus by the direct injury, and, secondarily, through shock upon the spinal cord? Assuming this, we may understand that the normal vascular and nervous tension attending live gestation being at an end the uterus might remain quiescent until, under the recurrence of the ovarian and menstrual nisus two months later, sufficient vascular and nervous tension were reproduced to effect the expulsion of the dead fœtus.

If we adopt this view, the case falls within the same law as that which governs the ordinary cases of retention of a dead fœtus, and this would not be a true case of missed labour. McClintock suggests that we might regard it as an example of prolonged or *serotine* gestation, but I prefer the view which I have indicated.

McClintock's third case—that of Dr. John Brown—presents the following history:—A woman, aged thirty, became pregnant in April. In August, after carrying a load, she felt unwell, and next day had severe hæmorrhage. In November she had severe uterine pains, and fœtal bones passed and others were extracted. No constitutional disturbance attended. She got well, and conceived again in the following April or May.

This is a not very uncommon case of retention for some months of a fœtus dying at a præviable stage of intra-uterine life.

Two other cases referred to by McClintock do not carry the evidence in favour of true missed labour any further.

However just, then, may be the conclusions of Stoltz and Müller in negation of the prolonged retention of a child alive at term *in utero*, I submit that my case

supplies almost irresistible evidence that the negation cannot be made to include cases of prolonged retention of a fœtus which had died *in utero* before term, and also that the case of Drs. Hall Davis and Halley* cannot be rejected in the way that Müller insists. In this case the removal of the fœtus was effected partly by spontaneous process extending over many months, and completed by operation after artificial dilatation of the cervix uteri. Dr. Hall Davis is clear that he extracted portions of the fœtus from the uterine cavity. The patient recovered. I have, at the opening part of this paper, expressed my opinion that Dr. McClintock's case also does not fall under the condemnation of Dr. Müller's criticism.

Of my own case I am entitled to speak with confidence. The history of the pregnancy and the degree of development which the bones had attained, make it clear that the fœtus had lived until at least the seventh month, so that the period of retention ended only by operative intervention, lasted six if not seven months from the date of the death of the fœtus, and fifteen or sixteen months from the date of conception. Then comes the fundamental question: Was the fœtus retained *in utero?* Was it truly a uterine gestation? Now, howsoever defective the evidence may be as to uterine pregnancy in Hall Davis's and McClintock's and other cases, I submit that in mine the evidence upon this point was as strong as evidence not completed by autopsy can be. The perfect and prompt recovery after the removal of the fœtus and placenta is in itself a strong presumption that the fœtus was removed from the uterus and not from an extra-uterine cyst. During the repeated manipulations necessary for examination and operation, I had on several occasions a great part of one hand in a cavity continuous with the cervix uteri, and I felt the parts of this hand through a thick dense wall, in no sensible respect differing from the characters of uterine wall, by the other hand applied to the abdomen. This observation was repeated and con-

* 'Obstetrical Transactions,' vol. ix.

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firmed by Dr. Fancourt Barnes, who assisted me, and after evacuation, confirmatory evidence supplied all that seemed to be wanting. Repeatedly I introduced a uterine tube to the fundus of the cavity to wash it out. It was a well-defined cavity with thick walls. More than this; day by day I measured the cavity by the sound, aided by external palpation, and ascertained that it shrunk gradually and regularly as the uterus does after it is emptied, until at last, before four months had expired, the uterus, as I now feel entitled to call it, had recovered its normal dimensions and other characters. To my mind, even a post-mortem examination could hardly have made the case clearer.

To sum up the conclusions which the actual state of knowledge seems to justify, I would submit the following propositions:

1. That the prolonged retention of a fœtus alive at term *in utero* is not yet established by authentic facts; and that consequently missed labour, if understood to mean the retention of a fœtus *in utero* which had been alive at term, a distinct parturient effort being then manifested and passing off, is also not yet established by authentic facts.

2. That a fœtus dying at a præviable age *in utero* may be retained until the full term of gestation.

3. That the case related in this paper affords strong presumption, if not absolute proof, that a fœtus dying at a viable age *in utero* may be retained for an indefinite time; and that in this sense "missed labour" may be admitted.

4. That the clinical histories of the cases known are not discordant with the following physiological theory:— When a living child is *in utero*, the natural high vascular and nervous tension accumulating and reaching its highest point at the ordinary term of gestation, labour almost infallibly takes place under the irritation of the tenth menstrual process; and when the fœtus perishes before this period, that is, before the physiological nervous

and vascular tension has reached its highest point, the nervous centres and the uterus may resist the menstrual stimulus, remain quiescent, and thus the dead fœtus may be retained. The uterus thus comes to resemble in its behaviour an extra-uterine gestation cyst.

Mr. SPENCER WELLS asked Dr. Barnes whether his most interesting case might not be explained on the assumption that the pregnancy was neither *intra-* nor *extra*-uterine strictly, but that form between the two, called by some interstitial or mural, in which the ovum is arrested just where the canal of the Fallopian tube passes through the wall of the uterus. He remembered that some attention had been given to this suggestion at the bedside of Dr. Barnes' patient; and he (Mr. Wells) thought that the subsequent history was quite consistent with this view. It was strengthened by a case he saw last year at St. Leonards with Dr. Penhall. A lady, who believed she was in the fifth month of pregnancy, was reduced to a state of extreme danger by constant pain and vomiting. Eminent men had said she could not be pregnant, because the cervical canal admitted the finger, and the sound could be moved freely to a depth of nearly five inches in the uterine cavity. Absence of bleeding and discharge negatived the fear of malignant disease, and the enlargement was so clearly in the uterine wall that Mr. Wells and Dr. Penhall agreed in the diagnosis of mural pregnancy, and in treatment by ergot. Dr. Penhall injected ergotine into the substance of the cervix uteri; severe pains followed and the expulsion of the fœtus, with complete recovery.

Dr. ROPER remarked that a reasonable explanation of these so-called cases of missed labour, is to be given from a point of view hitherto unnoted. Most of these recorded cases, he believed, were neither strictly uterine nor extra-uterine pregnancies when they came under notice. Originally they were uterine gestations, which during their course became partially or wholly extra-uterine in consequence of a degree of rupture of the uterus from external violence or injury of some kind, or from a spontaneous giving way of the uterine wall through degeneration of the uterine structure. It is not alleged that this rupture occurred to an extent as to allow the fœtus entirely to escape from the uterus, but to such a degree that ultimately a cyst was formed outside the uterus, the fœtus thus partly occupying the uterine cavity as well as the cavity of the cyst. The first symptoms observed were those of pain; in every case the pains of *labour* were equivocal, and the commencement of these pains was coincident with some accident or external injury more or less severe. The fœtus at this time ceased to give signs of life and the pains subsided;

then followed the history common to all—fetid discharge, putrilage, and bones. In every case in which a post-mortem examination has been made there has been found an aperture in the uterine wall connecting the cavities of the uterus and the cyst, the aperture seeming to represent the original rent or weak point which had given way at the time when the first pains were observed. There are two facts in the clinical histories of well-known lacerations of the uterus in severe labours, which seem to correspond to those in so-called missed labour, viz. the sudden cessation of pains and the speedy death of the fœtus. The pains of so-called missed labour are not to be regarded as true labour pains, but as resulting from some lesion of the uterine wall. The histories of the cases which have recovered are precisely like those in which a cyst outside the uterine wall has been found on post-mortem examination. In each case the fœtal bones have been detected in the uterine cavity, and have been wholly or partially discharged or removed through the os uteri. In the few cases which have ended in recovery it must have been very difficult to search the uterine cavity so accurately as to determine with certainty the absence of a cyst. The trismic condition of the os uteri in these cases is interesting as illustrating uterine polarity. The body of the uterus being injured its fundal polarity is arrested while cervical polarity remains in full force, hence the long retention of the dead fœtus *in utero*. I am glad of the opportunity of referring to uterine polarity, because there is no mention of it in English obstetric literature. We are indebted to Dr. Champneys for bringing this important subject to light, in an excellent article ('Obstetrical Journal of Great Britain and Ireland,' January, 1880) translated from Reil, with valuable remarks of his own.

Dr. Gervis, as corroborative of the feasibility of Mr. Wells' suggestion on Dr. Barnes' case, mentioned a case of extra-uterine pregnancy he had watched in consultation with a medical friend, in which very unexpectedly at about the fifth month delivery occurred *per vias naturales*, and, on introducing his hand into the uterus to remove the placenta, the gentleman in attendance found a distinct cavity or pouch towards the left angle of the fundus, in which evidently the fœtus had lodged prior to its passage through the uterus. Dr. Gervis also referred to cases having an alliance with cases of "missed labour," in which, at the time when delivery was due, a few ineffective pains alone occurred, and the actual delivery did not take place until three or four weeks later. Dr. Gervis gave particulars of one typical case of the kind in which this attempt at labour at the end of nine months occurred in successive pregnancies, with the result that a month further on instrumental aid was necessary in each instance, and the child born dead. At her fifth confinement the efforts of nature at the time calculated to be the proper

limit of gestation, were supplemented by the means usually adopted to provoke and accelerate labour, and the result was the birth of a living and healthy child. At her sixth confinement, when matters were again "left to nature," the same protracted gestation occurred, with the result of a very large child which died in the birth, the labour being instrumental and extremely difficult.

APRIL 6TH, 1881.

J. MATTHEWS DUNCAN, M.D., F.R.S. Ed., President, in the Chair.

Present.—45 Fellows and 13 visitors.

Books were presented by Dr. H. W. Acland, Dr. Allchin, Mr. W. N. Cattlin, Dr. Hall Davis, Dr. E. W. Jenks, Dr. H. R. Simpson, Dr. Heywood Smith, and Prof. Slaviansky, the American Medical Association, and the "Société des Sciences Médicales de Lyon."

William Gandy, M.R.C.S. (Gipsy Hill), and William Henry Netherclift, M.R.C.S., were admitted Fellows of the Society, and George Albert Farrer, M.R.C.S. (Brighouse, Yorkshire) was declared admitted.

The following gentlemen were proposed for election:—Thomas Hopcroft, M.R.C.S. (Dorking); James Henry Jeffcoat, M.R.C.S. (Chatham); Joseph Johnson, M.D.; George Town Penny, B.A., M.R.C.S.; Phineas Barrett Tuthill, M.D. (Chatham); Julian Willis, M.R.C.P. Ed.; and George Finch Jennings Worthington, L.K.Q.C.P. Ireland (Sidcup).

DERMOID CYST.

Mr. Knowsley Thornton showed a very curious case of dermoid cyst of the left ovary, which had been entirely twisted off from its pedicle and had become attached by a new pedicle to the right side of the omentum. The patient first came under his care seven years ago, and then had a doubtful abdominal tumour, and as it was causing her no great inconvenience she was advised to leave it alone. She had since had four children, and during the last pregnancy the tumour gave her so much pain that the question of its immediate removal was raised, but after consultation with Mr. Spencer Wells, Mr. Thornton advised her to wait till after the birth of the child. She suffered great pain in and around the tumour at each month up to the birth of the child, but went the full time and had an easy labour.

Mr. Thornton performed ovariotomy on April 2nd and removed the tumour, together with a cystic tube, and the remains of the twisted pedicle on the left side and a cystic right ovary. The patient is now convalescent.

The case presents so many features of interest that it will be fully published, but Mr. Thornton thought it well to show the specimen while fresh to the Fellows of the Society.

Dr. Heywood Smith some years ago had a case of ovariotomy similar to Mr. Thornton's, where there was no true ovarian pedicle, and where after he had separated an extensive omental adhesion the cyst was free. In that case the pedicle had become destroyed in some way, and the nourishment of the tumour had taken place through the vascular connection of the omentum, the blood-vessels of which were greatly enlarged for that purpose. He considered the length of time the cyst in Mr. Thornton's case had taken to grow to be due to a similar condition, where time had been occupied in the constriction and obliteration of the true pedicle and the subsequent formation of the new vascular connection with the omentum.

MICROSCOPIC SECTIONS OF A DERMOID OVARIAN CYST.

Exhibited by ALBAN DORAN, F.R.C.S.

THE sections are from a dermoid ovarian cyst removed by Mr. Thornton from a woman, aged 31. It contained pill-like pellets of fatty matter, of a kind already observed and accounted for by Rokitansky, Routh, and other authorities. Small secondary cysts projected from the inner wall which, over these cysts, appeared to consist of patches of true skin, with hair and firm bodies, apparently the germs of teeth; these bodies, however, proved to be cartilage. Sections of this cutaneous tissue were made by Dr. Vincent Harris, of St. Bartholomew's Hospital, and are exhibited this evening.

One section shows a true epidermic surface, with large hair follicles and well-formed sebaceous glands below. In others the structures found in normal subcutaneous connective tissue are seen, such as large plain muscular fibre cells. The tooth-like structures are simple masses of hyaline cartilage without any dental elements. The most interesting feature is the presence of well-formed mucous membrane in certain long narrow cavities in the subcutaneous tissue. This membrane is lined with perfect columnar epithelium, and bears numerous involutions, mostly deeper, at least, than Lieberkühn's crypts, and some resembling pharyngeal glands. Near one of these gland-like structures a direct gradual transition from squamous to columnar epithelium can be observed. The squamous layer is very deeply stratified, as in thick epidermis, and has a distinct Malpighian layer not deeply pigmented. An abrupt notch separates it from a somewhat deeper layer of columnar epithelium, which is set on a very distinct basement membrane, below which is lymphoid tissue. This change from epidermic to mucous

membrane is very remarkable, the more so since the columnar layer bears a strong resemblance to that which lines the intestines and stomach, which layer is derived from the hypoblast. Hence it would appear that a dermoid cyst may contain elements, derived in a normal ovum from all three layers of the blastoderm. This is an important fact, although it does not decide whether dermoid cysts be produced by fœtal inclusion as a more or less direct result of impregnation, or by a formative power which the ovary can exercise without impregnation. On the inclusion theory one would expect to find elements from all the layers of the blastoderm; on the other hand, if the ovary can, of itself, grow epidermic structures, there is no evidence why it should not also produce elements normally growing from the hypoblast, for this innermost layer is no more a special product of impregnation than are the epiblast and mesoblast. Lastly, it must not be forgotten that, as suggested by Mr. Thornton, the columnar epithelium in this section much resembles the epithelial lining of ordinary ovarian cysts that do not bear dermoid elements.

Dr. CHAMPNEYS said that the fact that the pharyngeal glands are lined with columnar epithelium (the pharynx itself being developed from an involution of the epiblast) is sufficient to show that columnar epithelium is not characteristic of hypoblastic structures.

In reply to Dr. Champneys, Mr. DORAN admitted that, apart from theory, it was not surprising to find all varieties of epithelium in cavities within dermoid cysts. It seems reasonable to regard the ovarian tissue, whence dermoid structures arise, rather as some undifferentiated kind of blastoderm than as a blastoderm divided into three layers, all of different formative powers, as seen after impregnation.

CASE OF EXTREME ARREST OF DEVELOPMENT OF THE GENITO-URINARY TRACT IN A FEMALE FŒTUS.

By Alban Doran, F.R.C.S.

A minute account of the dissection of this fœtus will be found in the 'Journal of Anatomy and Physiology,' vol. xv, p. 226, with diagrams. The specimen has, however, never been exhibited, and as it has as yet only been inspected by two or three persons besides myself, I thought it advisable to show it to the members of the Obstetrical Society, and briefly to recapitulate its peculiarities. Whilst in the two specimens exhibited by me a year ago ('Trans. Obstet. Soc.,' vol. xxii, p. 79) it was but the completion of the development of the genito-urinary organs that was arrested, in this case their formation has been checked and distorted from the very commencement, and the uterine elements are absolutely unsymmetrical.

Briefly, I may state the following facts concerning the fœtus. Its mother was a healthy married woman, under the care of Mr. Ritchie Norton, of Tottenham, who has presented the specimen to the museum of the College of Surgeons. It was born at the seventh month, and breathed for a quarter of an hour, the heart continuing to beat for half an hour after respiratory movements had ceased. There was complete ectopia of the abdominal viscera, club-foot, lumbar spina bifida and great spinal distortion, but all was normal above the abdomen.

Separated from the gap through which the liver and stomach protruded is (for this part is preserved, the upper portion of the body being rejected) a flat space distinct from the abdominal cavity, but not covered in by epidermis. The skin met at the umbilicus, and in this way separated the great gap from the flat space below. On this

space may be seen the bladder, consisting of two lobes, perfectly distinct, and between them, superiorly, the intestine opens from above into a circular aperture which freely communicates with the blind end of the intestine below. The ureters are impervious behind and close to the flat space. The right half of the internal sexual organs consists of the Fallopian tube and a tubular, thick-walled half-uterus opening freely into the flat space close to the right half of the bladder, it is quite of the lower marsupial type; the ovary is atrophied. The left half includes a perfect ovary and a Fallopian tube with a well developed fimbriated extemity, but the uterus is converted into an impervious cord. Below the two half-bladders is a nipple-like prominence on the flat space; it is the upper opening of a canal which passes through the pelvis, communicating with the surface by an orifice in the left thigh, bordered by a fleshy excrescence, apparently representing a labium. This canal appears to be a monstrous overgrown urethra, there being no trace of any ano-vaginal involution of integument in the perineal region, still, from any point of view, its nature is very obscure, and I doubt whether it be the true homologue of any normal structure but possibly a confusion of several elements. The absolute want of symmetry in the internal organs is decidedly the most interesting feature in this case, and not the less interesting in being so distinctly capable of demonstration.

Dr. CHAMPNEYS said that dilatation of the ureters is the usual condition in extroversion of the bladder, even where there is no structural impediment to the ureters. Such dilatation is more usual when the ureters open into the bladder than when they open elsewhere, *e.g.* vagina, rectum, &c.

In reply to Dr. Roper, Mr. DORAN stated that the ureters were dilated above the complete obliteration of their canal close behind the rudimentary bladder, so that they evidently had contained urine.

CALCULI EMBEDDED IN FEMALE URETHRA.

THE PRESIDENT showed several small oxalic acid calculi which had been removed from the wall of the female urethra, in which they had become embedded.

FALLOPIAN GESTATION.

DR. GODSON showed the uterus and appendages of a woman, æt. 25, who had died in the Dorking Workhouse Infirmary from internal hæmorrhage, resulting from rupture of a tubal fœtation. Mr. Hopcroft, who had sent up the specimen, could give no history of the case further than that the patient was believed to be unmarried and was in a dying state when she applied for admission. At the autopsy, about two pints of blood were found within the peritoneum. The specimen showed old adhesions attaching omentum and other structures to the uterus, both Fallopian tubes were tortuous, dilated throughout, and sacculated at their fimbriated extremities; the right tube at this end contained a fœtus of about six weeks' development enclosed in a fleshy mass, on the inner surface of which the villi of the chorion could be seen. Dr. Godson threw out the suggestion that the woman might have had gonorrhœa extending upwards, giving rise to the adhesions and to the subsequent dilatation of the tubes.

ANTEFLEXED UTERUS.

DR. HAYES exhibited an anteflexed uterus, removed from a young woman who was unmarried, and considered to be a virgin. The flexion was well marked, the angle of flexion being situated just above the internal os. A submucous fibroid tumour, the size of a small marble, was growing in the posterior wall in the convexity of the flexed portion. A fibrous polypus, the size of a flattened pea, grew from the posterior wall of the cervix.

ON THE SO-CALLED "MISSED LABOUR," WITH A CASE IN ILLUSTRATION.

THE adjourned debate on Dr. Barnes' paper was opened by Dr. INKSON, who related the case of a lady who, when about three months and a half advanced in pregnancy, took a journey of five days' duration, in the hottest season of the year, along the plains of India. The fatigue produced great exhaustion, and the pregnancy appeared to cease to progress from this time. Although she did not increase in size menstruation did not recur. About the time that labour should have taken place under ordinary conditions, she took a long ride on a restive horse; the severe shaking caused expulsive uterine pains, and an oval mass containing a very small fœtus came away. Dr. Inkson was of opinion that the intense heat and fatigue caused the death of the fœtus, which might have been retained for an indefinite period had not the patient subjected herself to such violent shaking.

Dr. EDIS remarked that in seconding the adjournment of the debate on Dr. Barnes' valuable paper upon "Missed Labour," he (Dr. Edis) had done so more with a view of affording those who were anxious to speak an opportunity of doing so, than of contributing anything to the discussion himself.

In looking up the literature of the subject there seemed to be much uncertainty as to what really constituted missed labour. Dr. McClintock applied the term to a class of cases of uterine pregnancy, in which, through failure of parturient action, the fœtus was retained for some indefinite period beyond the term of normal gestation. Such cases are among the very rarest in obstetric practice.

Several instances have been recorded by different authors of protracted gestation or postponed parturition, where gestation had been prolonged a month or more

beyond the time expected, an attempt at labour having occurred at the proper time but not terminating in delivery. Simpson recorded cases of parturition 324, 332, and even 336 days after the last appearance of the catamenia.

Meigs, of Philadelphia, gives the details of one case where the patient became pregnant in July, had spurious labour-pains on April 10th, but the child was not born until the 13th of September, the pregnancy having lasted fourteen months or 420 days. Dr. Atlee also records two instances where the pregnancy lasted nearly a twelve-month. What struck him (Dr. Edis) in perusing the record of these cases was the doubt whether they were really instances of intra-uterine gestation. In many cases there seemed strong presumptive evidence that they were instances of extra-uterine gestation, the supposed cervix uteri being nothing more than the fistulous opening in the vagina communicating with the cyst.

Dr. Müller, in an essay "De la Grossesse Uterine prolongé indéfinement," published so recently as 1878, collected no less than forty-five observations of supposed missed labour. He shows conclusively that many of these were cases of extra-uterine gestation, and after careful consideration of the facts, so far as they can be relied upon, he comes to the conclusion that "there does not exist an authentic observation of retention of the fœtus within the womb beyond the term of ordinary pregnancy." In this conclusion Dr. Edis fully agreed, unless Dr. Barnes' case might be regarded as an exception, but even this may have been partly interstitial and not an ordinary intra-uterine pregnancy.

We could not consider cases where labour was obstructed by contraction of the pelvic brim, inordinate size of the fœtus, or from cancer of the cervix uteri, &c., where labour came on at the normal term, as instances of missed labour. In some of these cases the uterus ruptured, the fœtus passed through the rent into the abdominal cavity, and, if the patient survived the shock,

[illegible] subsequently undergoing [illegible], the débris being expelled [illegible] the abdominal walls, [illegible]

[illegible] Dr. Barnes deserved much praise [illegible] ably before the notice [illegible] interesting study, but we [illegible] observations and post-[illegible] before the question could be con-[illegible]

Dr. [illegible] with one case of [illegible] which tended to confirm Dr. [illegible] were really [illegible] There had been a [illegible] the patient [illegible] sanguineous, [illegible] vagina, and the patient's condition [illegible] The fœtus was [illegible] resembling the uterus, [illegible] relaxation were detected [illegible] whether this were so in his [illegible] easily into the cavity [illegible] to fluid like that which [illegible] dilatation of the cervix with [illegible] was felt presenting through [illegible] which seemed to be the internal [illegible] however, to be an opening in the [illegible] at the point at which it was [illegible] The pregnancy proved to be [illegible] the sac lying in front of the uterus. If no [illegible] had been made in this case, all those who saw it would have continued to believe that the pregnancy was intra-uterine. He had met with another case of extra-uterine fœtation in which an incident occurred supporting Dr. Barnes' argument, that the immediate cause of the onset of labour was a quasi-menstrual nisus. The patient was taken into Guy's Hospital six months after the full

term of gestation, at which a parturient effort had occurred. Extra-uterine pregnancy was diagnosed, the sac lying behind the uterus, which was pushed forward and upward, and occupying in part the pouch of Douglas. No menstruation had occurred since conception except some sanguineous flow at the full term. One evening he received a message that the patient was in labour. He found rhythmical pains taking place, the bed surrounded with screens, and all preparations made to receive an infant. The vagina was relaxed and lubricated with abundant mucus, as in the early stage of labour, and there was some dilatation even of the cervix. To make the diagnosis absolute a tent was used, but the uterus was found to be empty. Twenty-four hours later, the rhythmical pains passed off, and menstruation came on, and lasted naturally for several days, after which the state of things became again quiescent.

Dr. Godson called attention to a case which came under his observation at St. Bartholomew's Hospital, which formed the basis of a paper by Dr. Greenhalgh, "On Missed Labour," in the eighth volume of the 'Hospital Reports.' After pointing out some errors of detail which had crept into print, notably one which described the head of the fœtus as of six months' instead of four and a half months' development, Dr. Godson proceeded to say that the case much resembled that related by Dr. Inkson, not being one of *missed labour*—in which the patient advances to her full period of pregnancy, or at all events to a time when the child becomes viable, and then the fœtus dying she goes to an indefinite time before it is expelled—but being one of *missed abortion*, in which the fœtus dies in the early months of pregnancy and the patient fails to abort, the embryo being retained to a remote period.

Dr. Heywood Smith remarked on Dr. Godson's observation that menstruation had not taken place *in consequence* of the presence of the arrested fœtus, that it was an

interesting question *why* such should be the case, as the fœtus ceasing to grow, and so pregnancy proper ceasing, why did menstruation not occur? for it was probably owing to its non-appearance that the ovum was not thrown off.

The PRESIDENT said that it was an important part of Dr. Barnes' work to have gone over most of the cases of so-called missed labour, and to have satisfied himself that there was no good case sufficient to prove absolutely that a child might die *in utero* at the full term of pregnancy and remain there for weeks or months after death. Authors of weight denied entirely the occurrence of protracted gestation and of missed labour. For his own part he (Dr. Matthews Duncan) believed in their occurrence. The probability of their occurrence was much supported by the facts that they occurred in the lower animals, and that missed abortion and missed miscarriage occurred certainly in women. He (Dr. Duncan) did not think the occurrence of labour premonitions a necessary part of missed labour. In a case which he had seen and published in his 'Clinical Lectures' there were no phenomena of labour till the evacuation of the uterus was undertaken artificially. In the best case of protracted gestation which he had seen and published, there was a beginning of labour at full term and labour came on spontaneously some weeks afterwards. Dr. Duncan thought it desirable that lithopædion should be better defined. At present the term was often used as synonymous with mummified fœtus; but there were difficulties in the matter, for lithopædion never occurred, as petrifaction of a fibroid was seen. The calcification in lithopædion affected the membranes, and only sometimes the adjacent parts of the fœtus. The fœtus did not become calcified through and through like a good uterine calculus.

Dr. BARNES expressed his gratification with the aid extended by so many speakers in elucidating the interest-

ing and difficult questions he had introduced. Referring to Mr. Spencer Wells' suggestion, that the case might have been one of intra-mural gestation, he could only say that it was a speculation and nothing more. There was no evidence in support of it, whilst the evidence that the gestation was intra-uterine was very strong. It was not usually a wise proceeding to seek to substitute for a rational and probable hypothesis, one that was very improbable. The usual course of intra-mural gestation was to end by a fœtal cataclysm at the second or third month, whilst uterine gestation usually ended in recovery, as Dr. Barnes' case did. This recovery, then, gave strong presumptive evidence in support of that given by frequent careful physical exploration to establish the conclusion that the gestation was simply uterine. Nor could he admit that Dr. Gervis's cases, which were of an ordinary kind, supplied any evidence against this conclusion. The theory of Dr. Roper, that in these cases the gestation was uterine and that under violence rupture occurred, resulting in partial protrusion through the rent into a sac subsequently formed, was especially ingenious. He would not absolutely exclude this speculation as applicable to some cases, but he could not see that it applied in the case before the Society. There was no evidence in support of it. It was another example of the proposal of a very improbable theory for one that was probable and in harmony with known facts. Nor could the theory of perverted polar action of the muscles of the uterus apply here. The proposition of Dr. Galabin, that the uterus was known by its rhythmical action, although generally true, could not be expected to apply here. After the death of the fœtus, the nervous and vascular tension of gestation having subsided, the walls of the uterus underwent gradual condensation, and contractility, if not lost, was much impaired. Oldham had discussed the probability of rupture of the uterus in his case, but had rejected it. He was probably right. Dr. Edis adopted the dictum of Müller, that there is no case of retention *in utero* of a

fœtus, dead or alive, beyond term. Dr. Barnes submitted that this was too absolute. There was nothing so dangerous as absolute doctrine in medicine. He always observed with respect the maxim he had learned early in his career at Paris from one of the most eminent surgeons of the day: "Ni jamais, ni toujours." He would not therefore negative Dr. Duncan's statement that protracted gestation and missed labour might occur. He should make a point of studying Dr. Duncan's cases. In the meantime he thought protracted gestation for an indefinite time required better proof than we possessed.

It was extremely important to attach definite meanings to the terms we employed. What he means by missed labour was the indefinite retention *in utero* of a fœtus beyond the normal term; and he drew the distinction between a fœtus dying *in utero* at a præ-viable age and one dying, as in his case, at a viable age. In this respect his case did not go *pari passu* with Dr. Greenhalgh's, which was otherwise very much in point.

He thought the term "missed abortion" so frequently used a singularly unhappy one. It could not survive the ridicule thrown upon it by McClintock, who said that long labour taking place naturally at term might strictly be called a "missed abortion." The term used by Stoltz, "concealed or incomplete abortion," was much to be preferred. The fœtus died and was retained. Abortion in all but expulsion had been effected. He could not agree with Dr. Duncan that the terms "lithopædion" and "mummified fœtus" were commonly used synonymously. A stone-child should at least be stony, it could hardly be confounded with a mummified fœtus. To preserve the distinction was the more important, because Cruveilhier had insisted that a true lithopædion was never found in the uterus. He believed Cruveilhier's statement was still true. Whenever a lithopædion, then, was found it might be concluded that it was extra-uterine.

A CASE OF DELIVERY THROUGH AN IMPERFORATE VAGINA.

By Heywood Smith, M.A., M.D. Oxon.,
PHYSICIAN TO THE HOSPITAL FOR WOMEN, AND TO THE BRITISH LYING-IN HOSPITAL.

Cases of atresia vaginæ, where a uterus exists, are happily rare, though several have been recorded and operated upon; but cases of congenital imperforation coincident with pregnancy are extremely rare, in fact, I have only been able to find records of two previous to the case I am about to narrate, viz. one in Paris, mentioned by Cazeaux, and one in New York, by Isaac Taylor.

Cases of atresia also occur accidentally, *i. e.* as the result of cicatrisation following a previous labour, but these belong to a separate category.

A little before midnight on the 15th of April, 1880, I was summoned to the British Lying-in Hospital to see a case that had just been admitted, the patient having been in labour thirty hours.

S. T—, æt. 31, married ten years, pregnant for the first time, was seen on the previous evening, April 14th, by Mr. Edwards, partner to Dr. Andrews, of Oakley Square. On examination, he was able to pass his finger only one inch and a half into the vagina, further progress being arrested by a membrane, of the thickness of the vaginal wall, which appeared stretched over and intervening between the finger, and what appeared to be the head of the child. The only wide opening he found was the patent urethra. Being naturally puzzled, he sent for his partner, Dr. Andrews, who, without any difficulty, passing his finger into the very wide urethra, thought it was the opening os uteri, and, giving the patient a sedative, counselled waiting till the morning. The next morning Mr. Edwards was sent for again, the woman being in strong labour, and found matters *in statu quo*. His

natural uneasiness was modified—(1) because as the woman had been impregnated he considered the labour ought to terminate naturally, and (2) as Dr. Andrews had stated that he felt the open os, he thought that time was all that was needed; and he accounted for the abnormal condition by the supposition that the child's head had forced the posterior segment of the uterus downwards and backwards, and so tilted the os forwards underneath the pubes.

Later in the day a more careful examination and inspection of the parts were made, when it was found that the wide opening was indeed none other than the orifice of the urethra widely patent.

At last, it having been placed beyond all doubt that there existed a very serious abnormality, Dr. Aveling was sent for in consultation, and the patient was examined under complete anæsthesia. Dr. Aveling then found that the vagina was a complete *cul-de-sac*; he could feel the uterus through the vaginal wall, and made out the os uteri to be dilated to the size of half-a-crown. As the patient lived in a small room, Dr. Aveling recommended her to be removed at once to the British Lying-in Hospital, where she was taken and admitted, still partly under the influence of chloroform.

In his letter accompanying the case, Dr. Andrews related the above facts, stating Dr. Aveling's opinion that the case would need an operation before delivery could take place; that the case was quite unique, neither of them having met with a similar one.

On my arrival at the hospital, and proceeding to examine the patient, I passed my finger at once into the urethra quite easily; it would almost have admitted two fingers, so that I was not in the least surprised to learn that it had at first been mistaken for the vagina. However, on more careful examination I found that the vagina was only one inch and a half long, that it was fairly roomy as far as it went, and that the roof was of the ordinary thickness of the vaginal wall. This vaginal roof was lax, and as the child's head was arrested at the brim,

and so was not pressing down on this membrane, it could be pushed upwards until the child's head was reached, when it was found that the head was uncovered by any uterine tissue, that, in fact, the os uteri was fully dilated, and the bones of the fœtal head were felt to be already overlapping.

The vaginal wall was absolutely free from any cicatricial tissue whatever, neither was there any constricting band. A most careful examination failed to detect the slightest orifice, or, indeed, any irregularity or depression that would lead to the idea of the previous existence of any canal. The case showed that there was a distinct floor of ordinary vaginal tissue separating the short lower passage of the vagina from an upper chamber into which the child's head was protruding.

There being, therefore, no outlet for the child, I proceeded to operate as follows:—I picked up a portion of the vaginal roof with a pair of forceps, and cut right through its whole thickness with one cut of a pair of scissors, and introducing my finger I came at once on to the child's head. I then gradually introduced two other fingers, and proceeded to tear the opening thus made larger. There was some slight hæmorrhage, but not much, and after a short time I was enabled to get the greater part of my hand through the opening in the vaginal roof. I then, as the woman had already been more than thirty-two hours in labour, put on the long forceps, and delivered her of a living female child.

The woman recovered without any bad symptoms, and before she left the hospital I examined her and made the following note:—Urethra patent enough to admit the finger two inches. Vagina natural to the point of the incision during labour. At that point there is a slight constriction, with, on the right side, a small flap, the remains of the congenital vaginal roof; just above this, on the right side, is a raised patch about three quarters of an inch long by a third of an inch broad, rather lighter in colour than the vaginal wall, feeling and looking as if

it were a patch of epithelioma; the cervix uteri was natural, and the os slightly patent. There was also a small patch similar to that just described, and about the size of a flattened pea, on the inside of the right labium majus. The infant is well and the mother nursing it.

Examination in June.—At an inch and a half distance from the vaginal orifice a ridge runs all round the vagina, marking the position of the former vaginal floor. Above this mark the vagina appears fairly natural; the constricting ridge admits two fingers barely. The lips of the cervix uteri not large, cervix not long; the sound passes 2⅝ inches. The flap before observed still exists. The patch on the vaginal wall has disappeared.

Examination December 7th.—Slight constriction of vagina at the site of the former vaginal roof, admitting a fair-sized speculum. There was a slight crack along the posterior left aspect of the constricted part of the vagina. Woman otherwise healthy.

The history of the case is as follows:—Father and mother healthy. A sister died in her first confinement, cause not known; child living. Menstruation commenced æt. 13, and was regular; flow free, at times accompanied with clots; pain at those times severe, especially at the commencement, and "confined to the passage through which it came." Her mother, now dead, told the husband that the patient was not made right and would never have any children, and that if she ever did become pregnant she thought she would not get over it. This evidence is very important, as it proves that the abnormality was congenital. Moreover, the mother was said to have been a trained nurse, and so her opinion must be allowed a certain weight.

After her marriage, ten years ago, the catamenia continued regular and painful, the flow being ushered in with "sharp pains."

About a year and a half ago she suffered so much from "whites" between the periods, that she attended as an out-patient at the Middlesex Hospital.

Through the kindness of Dr. Edis, I have been favoured with his notes of the case taken at the time. He wanted her to come as in-patient for an operation, but she would not consent.

"S. T—, æt. 30, married nine years. Catamenia regular, scanty, and painful. Complaining of thick yellow discharge, causing irritation in the groin. Pain in the left side. Bowels confined. No sense of taste or smell. Vaginal examination: on attempting to pass the finger *per vaginam*, the tip enters a *cul-de-sac*, about one and a half to two inches long. No orifice of any kind could be detected by the sense of touch, nor seen on inspection."

This testimony from so experienced an observer is of special value, as it confirms the former history, makes no mention of the presence of any cicatrical tissue, and shows that there was no orifice that could possibly be detected even after a minute examination.

The husband stated that generally there was no difficulty in coitus, but sometimes it produced great pain, and it appeared that he entered a narrow pipe. I think this points conclusively to the fact that the urethra was used during intercourse, and fully accounts for its abnormal patency.

The point of chief interest about the case is how did the woman become pregnant? Was there a small pin-hole passage through the congenital vaginal roof with a valvular orifice that rendered it undetectable, or was there a communication between the bladder and the upper chamber of the vagina, through which the menstrual flow took place, and through which the semen obtained access to the uterus? The other recorded cases, as far as I have been enabled to discover, throw no light on this important question, but perhaps some Fellow of the Society may have met with some case illustrative of this point.

I will now refer to one or two published cases that bear on this rare malformation. In vol. xii of our

'Transactions,' p. 34, there is a paper by Dr. Routh, "On a Remarkable Case of Absence of Vagina, with retained Menses *in Utero* and Fallopian Tubes." A patient, æt. 14, was brought to him by Miss Garrett, December 18th, 1869. "An examination locally, revealed an unusual state of things. . . . There was no vagina, but a sort of cæcum, certainly not longer than half an inch, if that. Superiorly was the urethra, which was dilated so as to admit the little finger, into which a catheter introduced drew off the urine." In this case two features present themselves, similar to the case under discussion, viz. the vaginal *cul-de-sac* and the abnormal patency of the urethra; the cause, however, of this patency in so young a girl does not appear.

In Cazeaux' 'Traité Théorique et Pratique de l'art des Accouchements,' 7th edition, 5th part, chapter 5, on "Des vices de conformation de la vulve et du vagin," p. 690, there is a footnote relating a case of labour impeded by vaginal obstruction.

The other case to which I will draw your attention is contained in a paper on "Atresia of the Vagina, Congenital or Accidental, in the Pregnant or Non-Pregnant Female," by Dr. Isaac Taylor, of New York, published in the 'Transactions of the American Gynæcological Society,' vol. iv, p. 4.

Dr. Taylor says: "Cases of congenital absence of the vagina are rare; cases of the same nature existing during pregnancy and involving two lives are more so." He then gives the notes of a case under the heading "Complete congenital atresia of the vagina; pregnancy; safe delivery; child living; treated by the tearing process."

The case, as narrated by Dr. Isaac Taylor, reads almost like a transcript of my own, nevertheless there are one or two points of difference that lead me to believe that the case I have brought before the Society is unique. In Dr. Taylor's case as labour progressed a slight depression in the vaginal wall became perceptible to the finger, and advantage was taken of this as marking the point where

the opening through the vaginal wall was subsequently made by scratching with the finger-nail. But in my case no inequality of the vaginal surface was discovered which could lead in the least degree to the supposition that any opening, even a valvular one, existed. True it was that the head being arrested at the brim there was no pressure from the presenting part of the child to help in any dilatation; but would not the gradual softening of the parts have led to the discovery of an opening, however small, if such had existed?

Again, in Dr. Taylor's case there was no necessity for any incision; the depression referred to was so thin that laceration was easily effected with the finger-nail, whereas in my case the whole vaginal roof seemed to be of the same thickness as the ordinary vaginal wall, and the tissue cut through with the scissors was of considerable substance.

When Dr. Taylor examined his case two months after her confinement, he found two constrictions, one near the vulval orifice and another nearer to the uterus, whereas in my case there was only one constriction, and that an inconsiderable one, at the site of the former vaginal roof.

And again, in his case it appeared at a subsequent visit that the parts still tended to contract, whereas when I examined my case only last December the vagina remained fairly patent.

There remains still the interesting question, that probably cannot now be satisfactorily answered, namely, how did this woman become impregnated? Did there exist, though it was not discovered, a minute opening through the congenital vaginal roof? Or, as it seems probable that connection took place by the urethra, was there an opening from the bladder into the superior chamber of the vagina? If such had existed it is quite possible that, after labour, during the natural contraction and involution of the parts, no further need existing for its patency, it finally closed.

At all events the case is one full of interest, and on

account of its rarity I deemed it of sufficient importance to bring it before this Society.

Dr. BARNES observed that Oldham long ago had pointed out that in some cases of absence of vagina the urethra was largely patent, and this without having served for sexual intercourses. It was not necessary to postulate a fistulous communication through the bladder into the upper pouch of the vagina to account for impregnation. The spermatozoa would find their way as in well-known cases of intact hymen. There was no doubt a small aperture leading to the uterus at the time of coitus which had become closed after impregnation. He had seen such a case where apparently complete closure had occurred from cicatricial contraction after sloughing. He had seen a considerable number of cases of absence of vagina. He had successfully treated them by incising partly and by stretching. In one case pregnancy took place after operation, and the subject died suddenly in the third month. The gestation took place in a one-horned uterus, which burst. An example of a successful operation, fatal to the subject. But there was a greater mystery in Dr. Smith's case than that of the conception. It was that expressed in the title of his paper: "Delivery through an imperforate vagina." He was glad to hear that this was solved by perforating the vagina.

Dr. ROUTH said he thought there were steps in the observation of Dr. H. Smith's case which could explain the impregnation. Dr. Smith had stated that this woman had been treated during her pregnancy for whites, with a good deal of local inflammation, in fact a vaginitis. Then that at the upper part of the vaginal diaphragm there was an indurated portion that looked like epithelioma, but which was not so, because it subsequently disappeared. Why should not this induration have been the remaining cicatrix of an opening in a hymen situated in the upper part, which allowed impregnation to occur prior to the vaginitis, but was afterwards closed by this inflammation? These instances of perforation by small pin-holes in vagina admitting flatus from the rectum, or urine from the bladder, often existed, and could not be detected by the closest observation, and very commonly only became obvious by injection of milk or coloured fluid. Why should not such an undetected small opening have existed here also?

A CASE OF IMPERFORATE VAGINA.

By Percy Boulton, M.D., M.R.C.P. Lond.,
PHYSICIAN TO THE SAMARITAN HOSPITAL FOR DISEASES OF WOMEN.

C. B—, æt. 18, married, came to me on Sept. 30th, 1880, at the Samaritan Hospital out-patient department, complaining of "something being wrong with her."

The catamenia always were accompanied by some pain; they lasted about three days, and were followed by "green waters" for several days after.

On examination the vagina was found to be a *cul-de-sac*, about an inch and a half deep, and no opening whatever could be felt.

The fact of menstruation made it evident that some outlet existed, and as the patient was intolerant of examination I determined to put her under chloroform and ascertain the condition of things, if possible, as it was evident that if pregnancy should occur this abnormal vaginal condition would be a formidable complication.

I took the patient into Dorset House, and Mr. Meredith administered methyline while I examined the vagina with a dilating speculum. When on the stretch I found at either side of the vaginal terminus a small opening, through which I could pass a probe, which openings were not visible when the parts were not on the stretch. Through these the menstrual fluid escaped, and the "green water" was the result of its partial retention.

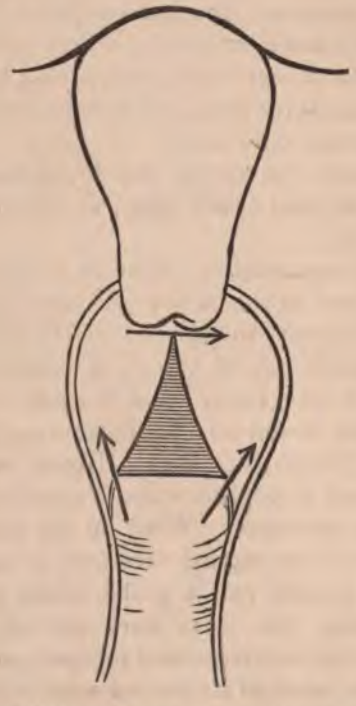
It was impossible to know what lay beyond the vaginal *cul-de-sac*, so I determined to dilate the openings with tangle, in order to ascertain precisely. I found—

1. A normal uterus, not a double one, as seemed possible.

2. That the vagina was tripartite, an upper and a lower, the upper one being duplex, the partition extending between the cervix uteri and the transverse vaginal septum. The longitudinal division was triangular in shape, the apex being towards the uterus and base below.

The two upper vaginal divisions were dilated somewhat by retained discharges, and I found a small communication close up to the uterine neck.

This I have indicated in the accompanying drawing, the arrows showing the situations of the openings, which were patent only on considerable vaginal distension, above by



catamenial fluid, below during connection, so that a pregnancy might easily have resulted.

Treatment.—It was only necessary to divide the central block to make a perfectly normal of this curiously congenital abnormality. This I did by passing whipcord round by means of a sound with an eye at the extremity, which acted like a magnified aneurism needle. The ends of the whipcord I attached to an écraseur, and the division was speedily accomplished without bleeding.

The after-treatment consisted in the wearing of a vulcanite vaginal plug for three weeks, when all being healed the patient returned home perfectly well.

This case shows the value of dilating, when it is practicable, before surgical interference, as it might have been a very dangerous proceeding to have operated in any way without knowing what lay beyond the vaginal *cul-de-sac* in a case of congenital malformation.

Had I cut from without inwards there might have been troublesome bleeding, and with the cautery I felt that the cicatrix or subsequent contraction might be an impediment in a future labour, while beyond the slight manipulation difficulty of passing anything round this centre block, the plan which I adopted could scarcely be objected to.

Dr. CHAMPNEYS said that a point of great interest in the case was the association of fleshy vaginal transverse partition with a vaginal septum. He had seen several cases where a fleshy hymen was perforated by two duct-like openings lying side by side, and in a case of extroversion of the bladder in a female child, which he published in 'St. Bartholomew's Hospital Reports' vol. xiii, he expected from this appearance to find some want of fusion of the ducts of Müller, either as vagina septa or uterus septus. In that case no such condition existed, but he had lately been shown a case by the President in which his guess was correct, the upper part of the vagina and the uterus being divided by a septum, similar duct-like holes being present. He was disposed to regard fleshy hymen as a sign of disordered development, shown by the frequency of these duct-like openings to be closely akin to vagina septa and uterus septus.

Dr. BOULTON expressed his conviction that in most, if not all, cases of apparently imperforate vagina, where menstruation or pregnancy occurs, a pin-hole opening exists and may be found if diligently sought for. His own was very much a case in point, and he was glad it had been taken in conjunction with Dr. Heywood Smith's very interesting case, as he thought it offered the probable explanation of the pregnancy.

MAY 4TH, 1881.

J. MATTHEWS DUNCAN, M.D., F.R.S. Edin., President, in the Chair.

Present—41 Fellows, and 5 visitors.

Books were presented by Dr. J. M. Dolan, Dr. Lewis, Dr. Mason, Mr. Albert Napper, Dr. John Thorburn, and Dr. Van der Bosch.

A cast of a fœtal head, showing the characteristic depression in the left temporal region, caused by the promontory of the sacrum, was presented by Dr. George Roper.

The following gentlemen were elected Fellows of the Society:—Thomas Hopcroft, M.R.C.S. (Dorking), James Henry Jeffcoat, M.R.C.S. (Fort Pitt), Joseph Johnston, M.D., George Town Penny, M.A., M.R.C.S., Phineas Barrett Tuthill, M.D. (Chatham), Julian Willis, M.R.C.P. Ed., and George J. Jennings Worthington, L.K.Q.C.P.I. (Sidcup).

PLACENTA FROM TRIPLETS.

DR. GALABIN showed, for Dr. John Bassett, the placenta from a case of triplets. In this case the placenta when examined on its uterine surface presents the lobular appearance met with in a single birth, whilst on the fœtal

side are attached three umbilical cords and the remains of three sets of membranes; on neither surface is there any distinct appearance of separation, such as is usual in multiple births. Was the Graafian follicle from which this conception resulted a compound one, with three yelks and three germinal vesicles? or were there three separate vesicles impregnated at the same time and deposited simultaneously on a common decidua? It is well known that in ordinary twin births the placentæ are separate bodies placed side by side, and, from the children constantly differing in size, it is fair to infer that many of them are cases of superfœtation; in a small minority of cases of twins there is a single placenta with two sets of membranes and two cords; these belong to the same category as the specimen now exhibited. What is the answer to the questions here stated to the Society? The pregnancy was in every way a natural one, and advanced to nearly the full term without noticeable incident; the children, all females, were of fair size, two are still living, the larger one died when three months old from an attack of peritonitis.

ABNORMAL ATTACHMENT OF PLACENTA.

Dr. Galabin also showed, for Dr. John Bassett, a fœtus with the placenta adhering to the cerebral membranes. In this case the base of the skull is imperfectly formed and the vault is absent; the placenta is seen adhering to cerebral membranes; no brain substance was developed; the cerebral membranes contained some fluid, how much was not ascertained, as they were ruptured at the time of birth; the placenta was previous. Nothing abnormal was noted about the pregnancy until nearly the end of the eight month, when hæmorrhage set in, this was not, however, so severe as to lead to immediate interference. On

the tenth day after the hæmorrhage began labour came on spontaneously, and, as the hæmorrhage was severe, on the arrival of Mr. Draper, who was in attendance, he deemed it expedient to effect delivery by turning. The child was born alive, and respired imperfectly for about an hour; the patient made a satisfactory recovery, her health is believed to be good, and she has had four healthy pregnancies previously.

PESSARIES OF ZYLONITE.

Dr. Meadows showed pessaries made of the new material zylonite, a compound of paper and nitro-glycerine. It was more elastic than vulcanite, and could be more completely softened for moulding by boiling water.

LEITER'S TEMPERATURE REGULATOR.

Dr. Godson showed a new apparatus for applying heat or cold to the surface of the body. It is known by the name of Leiter's temperature regulator, and consists of a coil of very pliable metallic tubing, which may be twisted into any shape to adapt itself to different parts of the body. By means of rubber tubing attached to either end, one communicating with a vessel of water placed at a higher level, a continuous stream of hot or cold water can be made to circulate through it. Dr. Godson thought it would be valuable in post-partum hæmorrhage, as it could be made to grasp the uterus tightly under the hand or under a binder.

FLESHY SUBSTANCE DISCHARGED FROM UTERUS.

Dr. Cleveland exhibited a cylindrical fleshy substance, about three inches long by three quarters of an inch in diameter, having an aperture or mouth with lips at one end that led to a channel, about the size of a quill, running its entire length. It had a remarkable resemblance to a uterus, and was expelled with pain and slight hæmorrhage three days after the delivery of a seven months' child, which presented nothing unusual. The lady, who had previously borne eight living children at term, stated that in her last two labours a similar substance to that exhibited, but rather larger, had been expelled on the third day after delivery.

A committee, consisting of Dr. Galabin, Dr. John Williams, and Dr. Cleveland, was appointed to examine the specimen and report thereon.

CASE OF PHLEGMASIA DOLENS WITH LYMPHATIC VARIX.

By J. Matthews Duncan, M.D.

I lay the following case before the Society on account of its own interest, but still more with a view to contributing something that may help us towards a complete theory of the pathology of phlegmasia dolens. It is not my object in the meantime to discuss fully this important matter, and it is merely to maintain the continuity of the Society's work that I recall to mind the elaborate and full consideration given to it in our 'Transactions' in three papers by Tilbury Fox published therein.

Thrombosis and inflammation of veins, the most striking lesion observed, is not invariably present, a circumstance which, apart from other considerations, demonstrates its

insufficiency as a basis for the pathology of this disease. The wide acceptance of this theory of phlegmasia dolens is not astonishing, for it had much to recommend it as a solution of a difficult (and still unsolved) problem. Long before the times of Davis, the original propounder, and of Robert Lee, the supporter and improver of the theory of the venous origin of the disease, it had been suggested by various authors that the lymphatics were affected, either alone or along with the veins, and that the affection was inflammation, or obstruction, or both. Amidst a confusion of more or less conflicting pathological explanations, this lymphatic origin has always maintained a prominent place, and it is supported by Tilbury Fox. I, also, am disposed to support this hypothesis, that phlegmasia dolens is due to venous and lymphatic inflammation and obstruction, and that of these two the lymphatic disease is the more important, especially as being probably present in every case, while the venous disease is occasionally absent.

Our knowledge of the anatomy, the physiology, and the pathology of the lymphatics is still comparatively limited; and these remarks apply with such cogency to the subject under discussion as to command great modesty in the statement even of hypotheses as to the lymphatic theory of white leg. It is from this kind of view that the following case has appeared to me important and worthy of record. It narrates, *inter alia*, a series of facts as to the lymphatics in a single case; and "one fact is worth a cartload of arguments," especially when, as here, facts are in the highest degree rare.

Although a well-marked example of white leg, the case did not occur in the puerperal state, but in the downward progress of advanced and characteristic carcinoma uteri. Its history embraces the latter part of an extensive and severe affection of the entire left lower limb, and the whole course of a slighter attack affecting, on the right side, the leg proper only. She resided in St. Bartholomew's Hospital from November 17th to January 7th, when she went away regarding herself as in much improved if not in

fairly good health, considering the serious disease which remained.

When she entered the hospital there were no remains of the hard, tender and not pitting œdema of an earlier stage of white leg, though in some parts there was a near approach to these conditions. The whole left leg proper was tender and œdematous and pitted on pressure, but was not so soft and easily dented as an ordinary anasarca. Besides these two conditions of this lymphatic œdema there is a third, which was very marked in this case, namely, swelling without any tenderness and without any pitting on pressure. It affected the thigh, and would have escaped detection had there not been the healthy right thigh with which to make comparison. It is important in the description of cases to keep in mind these three varieties of lymphatic œdema; and in regard to the last kind, made out by comparison with a healthy limb, it is to be remarked that, if the other limb itself is also affected, this kind of swelling may remain undetected or at best only guessed at.

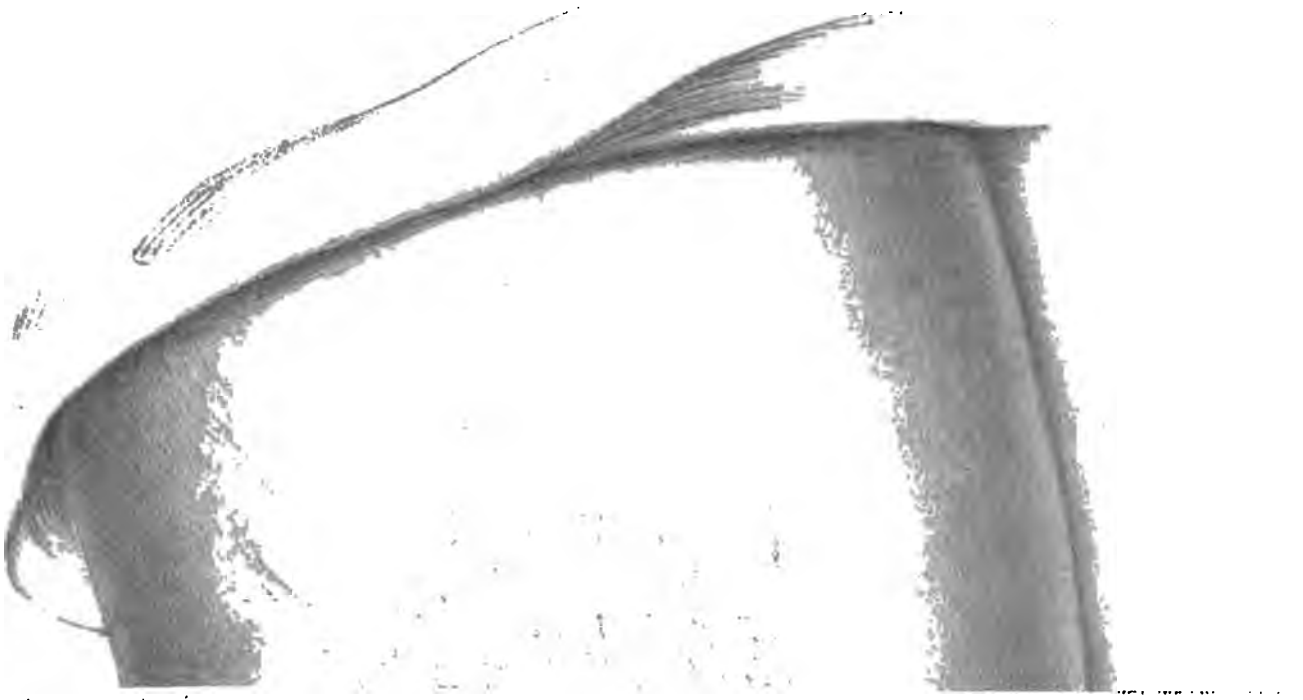
When the lymphangiectatic patch of the left leg was first observed (see Plate I) on her admission to the hospital, the phlegmasia dolens was subsiding, and the distended lymphatics were probably much less than they had been before her illness became so prolonged as to compel her to take refuge with us. The part visibly affected was the skin of the upper and outer anterior surface of the left thigh; and it constituted an oval or triangular area, broader above than below, and of such extent as might be nearly covered by the hand. There was no pain nor tenderness. The projecting vessels, covered by epidermis, having a yellowish-white tint and pearly lustre, were seen and felt, and the prick of the small point of a knife allowed a large drop of limpid lymph to immediately exude. Two days after the pricking and for some days subsequently we thought we could feel the lymphatic vessel consolidated, presumably by thrombosis, above the prick, about half an inch, and from the prick to the junction of another anastomosing lymphatic. As the white leg diminished and disappeared

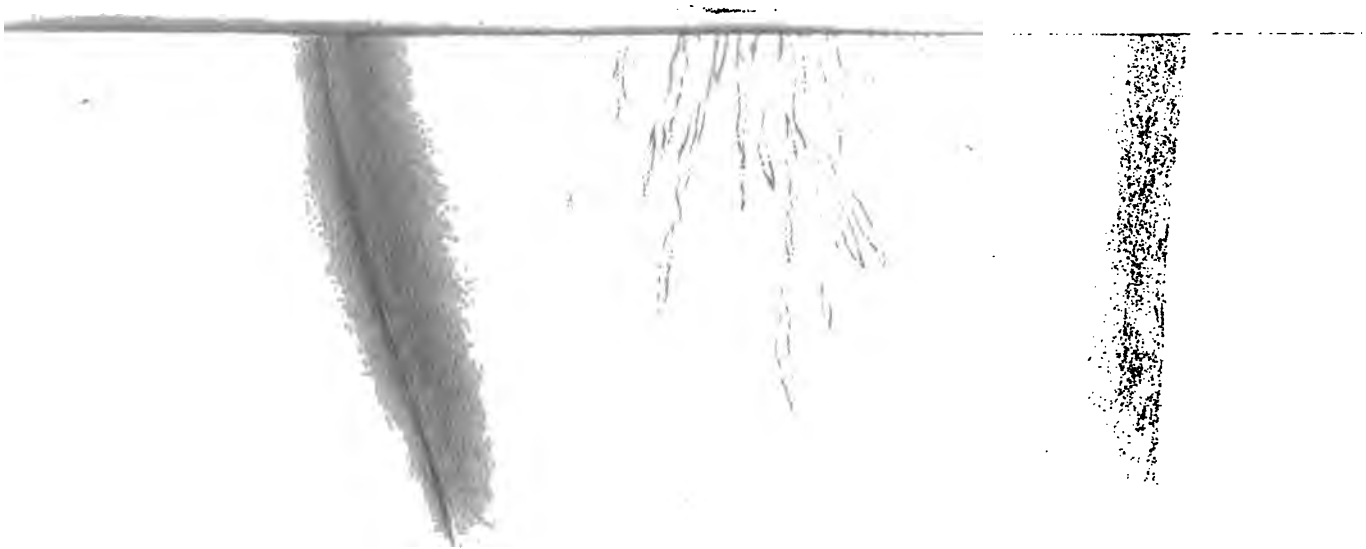
DESCRIPTION OF PLATES I AND II,

Illustrating Dr. J. Matthews Duncan's Case of Phlegmasia Dolens with Lymphatic Varix.

PLATE I.—Fading lymphatic patch of left thigh, as seen several days after admission, and about three weeks after the commencement of left phlegmasia dolens.

PLATE II.—Skin-crack patch of right thigh, as seen before attack of right phlegmasia dolens.





Westmacott direx.

so did the lymphangiectasis, but the lymphatics, as marked by visible and not otherwise sensible, much contracted, pearly lines on the surface, remained till she left the hospital, and will probably persist during life.

As the disease was slowly disappearing from the left limb there began a similar affection of the right one; but the attack was not severe, the tenderness and swelling never considerable, and affecting only the leg proper, and it passed off with rapidity when compared with the left-side affection. On the same part of the right thigh as was occupied by the lymphatic patch on the left there had been observed (and pictured) an oval patch of ordinary spindle-shaped, ribbon-like, skin-cracks, not silvery lines (see Plate II); but, now that phlegmasia dolens seized the limb, the skin cracks became obscured, and at last scarcely to be detected, the whole area of the cracks being occupied by a network of lymphatics exactly like what had been on the left side, the vessels being only less distended. As the phlegmasia diminished the lymphatic enlargement faded, but the skin never lost the pearly lines mapping the course of the lymphatics, and never resumed the previous appearance of skin merely injured by extensive skin cracks. When the woman left the hospital the special areas on both thighs were closely alike, the lymphatics being seen without being looked for, the skin cracks not easily seen but easily discovered in small parts when looked for.

There can be no doubt that in this case both thighs were, before the coming of phlegmasia dolens, or originally, alike, having each a patch of skin cracks, which probably arose in connection with pregnancy. In both thighs the area of skin cracks became the area of varix of cutaneous lymphatics. In both thighs the lymphangiectasis was part of the phenomena of phlegmasia dolens. It seems highly probable that the mechanical weakening of the skin, as of a bandage, which should itself be uniformly strained and uniformly support subjacent parts, was a predisposing cause of the lymphangiectasis in their special situation. Lastly, it is highly probable that this visible lymphangiectasis

was not the result of any special inflammation or obstruction to the course of the lymph in these parts, but that the obstruction was general in the limb and produced visible lymphangiectasis where the skin, as aforesaid, was weakened by skin cracks. Had there been skin cracks elsewhere in the limbs, we should have expected lymphangiectasis in the same places. Probably the whole lymphatics of the limbs were distended, but became visibly varicose at the affected parts, because there imperfectly supported.

The temperature variations during her stay in hospital were very slight, between 99° and 100·5°, only on three evenings rising above 101°, and only once among these as high as 101·8°. There was a rise generally of only about ·5 during the first five days of the phlegmasia of the right leg. For ten days before she left the house the temperature was normal.

Similar transformations of skin cracks, or the simultaneous occurrence of skin cracking and lymphatic distension, are often observed in the skin of the abdomen of pregnant women and elsewhere; and I have often pointed them out to pupils. These varying conditions of skin-cracks have given rise to the chief differences that are so striking in the descriptions by different authors of abdominal skin-cracks in pregnancy.

Although, as already said, I do not enter on the general subject, but merely make comments on an individual case, I cannot avoid referring to the most valuable paper of Dr. Busey, published in the fourth volume of the 'Transactions of the American Gynecological Society,' entitled "A Contribution to the Pathology of the Cicatrices of Pregnancy," the last and best work having reference to my subject.

S. H—, æt. 42, admitted into Martha Ward, November 17th, 1880. Has been twice married, first twenty-six years ago, and again nineteen years ago. Catamenia began at eleven years, and have been regular till about a year ago. Had one child twenty-five years ago.

About once a year, for the last seven years, she has had a flooding. Four years ago it was so severe that she was admitted into Soho Square Hospital. She says that these floodings were not connected with miscarriage, and that there was no fetid discharge at these times.

Her present illness began with a severe flooding ten weeks ago. It lasted, with intermissions, for a fortnight and made her weak and bloodless. Eighteen days before admission she began to suffer pain in the left leg, especially along the inner side of the thigh in the course of the internal saphena vein. Four days after the pain began the calf of the leg swelled rapidly, and this state extended downwards and upwards to involve the whole limb. The swelling gradually increased for about ten days and then began more slowly to diminish.

At present she is thin, anæmic, and her face has an expression of anxiety and of suffering. Her tongue is clean. Bowels regular. Appetite small. Micturition easy, urine natural. Pulse feeble, regular, 124. Heart sounds normal. Resp. 30. Temp. 99°. Lungs healthy. Examination of hypogastrium discovers nothing abnormal. Inguinal glands somewhat enlarged and tender, and similar swelling and tenderness in the region of the saphenous opening. The left limb is swollen from hip to foot, the leg more so than the thigh. The whole limb is tender. The thigh does not pit on pressure, while the leg and foot do so. On the outer side of the upper part of the left thigh, over a space as big as the hand, are numerous pearly projecting lines, which feel distended and have the characters of lymphatics. On pricking two of the largest, slightly viscid lymph comes out; it is a clear fluid, and under the microscope shows numerous corpuscles like those of lymph.

On the opposite or right thigh, and nearly in the same situation as is occupied by the lymphatic patch on the left, is a patch having some resemblance to it, but it is evidently caused by mere skin-cracks. They are elongated, spindle-shaped, bluish spaces, closely resembling the skin

cracks on the patient's abdomen. They are felt to be easily depressed or to be really depressions between beams of uninjured skin. They have a dead aspect, not a pearly lustre. They are straight and ribbon-like, whereas the lymphatics of the left patch are fretted, continuous, anatomosing, and at parts somewhat moniliform in outline.

Examination *per vaginam* discovers an advanced condition of malignant disease of the cervix uteri, it being an irregular semiglobose mass, fixed, not hard, having nodosities, not in the mesial line, but as if pressed towards the left thyroid foramen; it bleeds a little when touched. The discharge is very slight.

It was ordered to administer food liberally and to keep the leg in hot flannel fomentation.

November 23rd.—Leg diminishing in size, and painful only when handled. Four inches above the knee it measured on the 17th 15½ inches in girth, while the right was 12¾; now it is only 13¾ inches. On the 17th the calf measured 16½, while the left was 10¾; now it is only 13¼.

25th.—At the upper margin of the area of lymphatic dilatation two vessels give the examining finger the feeling of being plugged by clots nearly half an inch long. These thrombosed portions are just above the pricks made to let off the lymph.

27th.—Leg still less in size, and presents little or no tenderness. General condition greatly improved. Pulse 112, temp. 100·4°. Lymphatic distension has disappeared.

December 4th.—Slight attack of phlegmasia dolens in the right leg, which is swollen and tender, and pits on pressure. Now the patch on the right thigh closely resembles the lymphatic patch on the left, only the vessels are not so large and distended. The skin-cracks are now with difficulty made out. Pulse 96, temp. 100°.

10th.—The swelling of the right leg has gone, leaving only puffiness of the ankle. Pulse 90, temp. 98·6°.

January 4th.—The swelling of the legs has disappeared. She feels well, and walks about, but is losing flesh. The patches on the thighs are nearly alike; both have more the appearance of lymphatic patches than of patches of skin-cracks. In both, and especially near the margins of the areas, skin-cracks are now to be found distinctly when looked for, and more easily in the right than in the left thigh.

7th.—Dismissed.

Dr. PLAYFAIR said that he had himself no doubt of the accuracy of the theory of phlegmasia dolens adverted to by Dr. Duncan, viz. that, in addition to the thrombosis of the venous trunks of the affected limb, there was also some affection of the lymphatics, and this was his view of the disease he had himself adopted in his work on 'Midwifery.' There were many clinical facts which proved to demonstration that thrombosis of the venous trunks was not of itself sufficient to account for the phenomena of the disease, although from its facility of detection it had naturally enough received much attention. Amongst these might be mentioned, by way of illustration, the well-known thrombosis of the veins of the lower extremities occurring in gouty subjects, in connection with which nothing like phlegmasia dolens was observed. What Dr. Duncan's cases did seem to him chiefly to prove was the probably intimate relation between a certain amount of septic absorption and phlegmasia. The occurrence of more or less septicæmia before puerperal phlegmasia had frequently been pointed out, and he had no doubt himself of their intimate relation. It was curious that true phlegmasia was far from uncommon in connection with malignant disease of the uterus; this existed in both of Dr. Duncan's cases, and it can be readily understood how septic absorption might frequently occur in a disease attended by much destruction of tissue, and characterised by abundant fetid discharge. Dr. Duncan stated his belief that lymphatic irritation or obstruction, or whatever the condition of the lymphatics might be, had more to do with the production of phlegmasia than venous thrombosis. It did not seem to him (Dr. Playfair) that there was any sufficient ground for such an assumption. Certainly, in these cases there was marked evidence of great lymphatic complication in the form of lymphangiectasis, but he had never seen anything analogous to this in puerperal cases, and probably it resulted from the peculiarly acrid and irritating character of the discharges in cancerous disease. On the contrary, there was a certain class of clinical facts, which he had formerly alluded

to in writing on this subject, which showed that in many cases of phlegmasia the starting-point was venous thrombosis. Such were cases in which there was marked evidence of central venous thrombosis, in the pulmonary artery, for example, which preceded for a considerable time the appearance of phlegmasia in the limbs. There could be no doubt that, under such circumstances, the central and peripheral thrombi were produced by similar causes, and were the main factors in the disease. He was, at the present time, seeing daily a lady whose case formed an admirable example of this clinical fact. She had had a very difficult labour, followed by a sharp attack of septicæmia. Towards the end of this she showed symptoms of pulmonary obstruction, dyspnœa, palpitation, and the like, and along with this a loud systolic pulmonary murmur was developed, the inference being that a thrombus had formed in the pulmonary artery. Some ten days or more after this, and when the cardiac symptoms had much abated, she developed a large phlegmasia in the left lower extremity. Did not this sequence of events clearly show that she had first septicæmia, then central thrombosis, and lastly peripheral thrombosis? A case like this certainly gave no support to the theory that the main agent in the production of the disease was lymphatic obstruction.

Dr. Graily Hewitt agreed with the President in his estimate of the importance of the late Dr. Tilbury Fox's paper on phlegmasia dolens. There seemed to be little doubt that in typical cases of this disease both lymphatics and veins were affected. He believed that the lymphatic coagulation and obstruction resembled that of the veins. It was known that as regards the venous obstruction it originated—probably always—in coagulation in the uterine sinuses extending into the iliac trunk; it was reasonable to infer that the lymphatic vessels might become similarly affected, and that the mechanism of the lymphatic obstruction resembled that observed in the veins. The conjunction of the two obstructions constituted phlegmasia dolens.

The President would not attempt to estimate precisely the comparative extent of influence in phlegmasia dolens of venous and of lymphatic obstruction. He would only say that while sometimes venous obstruction was certainly absent, we could not, in the present state of our knowledge, say the same of lymphatic obstruction. In advanced pregnancy, without active disease, venous obstruction was often proved by venosity, and by varicose veins of the lower limbs. Such evidence of obstruction did not reach higher than the brim of the pelvis. On the other hand, lymphatic œdema and varix were common in the lower limbs, and also in the lower part of the anterior wall of the abdomen, especially in multiparæ, and above the brim of the pelvis.

A CASE OF EXTRA-UTERINE, ASSOCIATED WITH INTRA-UTERINE, FŒTATION, IN WHICH ABDOMINAL SECTION WAS PERFORMED.

By Alfred L. Galabin, M.D., F.R.C.P.

On the evening of June 18th, 1880, I received an urgent message from Mr. Thomas Duke, of Rugby, asking me to come down to see a patient who was in imminent danger from rupture of an ovarian cyst, associated with pregnancy, and to be prepared to perform ovariotomy at once. I was unable to reach Rugby until the afternoon of the 19th, and I then obtained the following history from Mr. Duke, to whose minute and accurate observation of the case throughout I am greatly indebted.

Martha E—, æt. 36, was married for the first time in the spring of 1878. In the summer of that year she had an abortion. On April 21st, 1879, she was delivered by forceps of a fine male child. There was a slight rupture of the perineum, but she made a good recovery. She engaged Mr. Duke to attend her in her second confinement, which she expected in September, 1880. In April she came to him, complaining of a pain in the right side, which she attributed to a fall over a chair. On June 3rd he was sent for, and found her in bed complaining of great pain and tenderness on the right side. On examination, the abdomen was found much distended. The distension was caused by two tumours, one of which occupied the pubic, left inguinal, and iliac regions; while the other, quite distinct, occupied the right iliac, most of the umbilical and epigastric regions, and pushed up the liver, so that the tumour caused the ribs of the right side to be distinctly elevated. It caused an obvious prominence on the right side, and passed backward towards the spine. There was a distinct sulcus between the two swellings, broad enough to pass a finger between them, and the out-

lines of the two were distinctly felt. Fluctuation was felt in both. Fœtal movements, the fœtal heart sounds, and the uterine souffle were distinctly to be discerned in the left tumour, which was evidently the pregnant uterus. In the right tumour fluctuation only could be detected. She said that she felt the movements of a child, but in the left-hand swelling only. A diagnosis was made of ovarian tumour complicating pregnancy, and two other medical men who saw the patient agreed in this diagnosis.

She was ordered to remain in bed and keep quite quiet. On the 10th, however, she was so far better that she walked to Mr. Duke's house, still complaining of pain on the right side of the abdomen. A few days later pain again increased, and sickness began, with increased tenderness. On the night of the 16th she complained suddenly of great pain and faintness, and sent for Mr. Duke. When he reached the house he found her in great pain—moaning and tossing about, cold, and with a quick pulse. The outline of the right tumour had disappeared, and fluctuation was now to be felt all over the abdomen, with increased swelling. She continued thus, in great pain and growing weaker, until, on the morning of the 18th, Mr. Duke sent for me, considering that an exploratory operation would probably give the only chance of saving her.

When I examined the patient on the following day, the pregnant uterus, displaced towards the left side, and corresponding in size to between the sixth and seventh month of pregnancy, was readily to be made out, and the fœtal heart sounds were readily audible over it. The abdomen was greatly distended, and over its right side and upper portion there was general fluctuation. On deep pressure to the right side of the fundus uteri some more solid mass could be detected, and, on vaginal examination, what appeared to be the same mass could just be reached behind and to the right side of the cervix. There were general signs of peritonitis, pain and tenderness of the abdomen, and small, rapid pulse. The pulse-rate was 140, temperature about 100°. Nothing whatever could be

made out by auscultation over the right side of the abdomen.

Having received so distinct a history of an apparent cyst on the right side having previously existed, I was disposed to agree with the diagnosis of ruptured ovarian cyst, but suggested the possibility that the case might turn out to be one of extra-uterine, combined with intra-uterine foetation. I advised an exploratory incision as the only chance for life.

I performed the operation on the morning of June 30th, with the assistance of Mr. Thomas Duke, with Dr. Lepage and Dr. S. Bucknill, Dr. Simpson administering the anæsthetic. The incision was made in the median line, extending about equally above and below the umbilicus. On incising the peritoneum blood spirted out, and I then at once came to the conclusion that the case was one of extra-uterine foetation. After a considerable quantity of clot had been removed, the extra-uterine foetus, enclosed only in its thin membranes, was found lying to the right side of, above, and somewhat behind the uterus, the greater part of it being above the level of the umbilicus. The placenta appeared to be spread out very widely, and attached chiefly to the posterior surface of the right broad ligament, and of the pregnant uterus. There was no obviously detached portion, although some detachment must have occurred to cause the hæmorrhage. The small intestines showed evidence of early peritonitis, and were so greatly distended that much difficulty was experienced in keeping them within the abdomen during the operation. The peritoneum was sponged out, the placenta being left alone. The funis was fixed in the wound with a glass drainage tube, which entered the general peritoneal cavity. The membranes tore so readily that it would not have been possible to stitch them to the edges of the wound so as to shut off the general peritoneal cavity, had such a course been thought desirable. Moreover, the blood which had been effused was found almost entirely in the peritoneal cavity, the liquor amnii which remained within the mem-

branes being almost free from blood. The operation had been performed under carbolic spray, and the wound was dressed with carbolic gauze, a cup-shaped sponge wrung out of carbolic solution being placed over the end of the drainage tube.

The child, a female, was dead, but not decomposed. It measured 14½ inches in length, but weighed only 1½ pounds.

On the evening after the operation the patient was very faint; temp. 99·8°, pulse 144. The dressings were moistened with some sanguineous fluid, which escaped through the drainage tube.

On the morning of the 21st there was still some escape of sanguineous fluid, but only in slight amount. The patient was very sick. Temp. 99·3°, pulse 148. Evening: temp. 99·7°, pulse 144. She seemed much stronger, and sickness had ceased. Wound dressed antiseptically.

On the 22nd, at 5 a.m., Mr. Duke was sent for, and found her in labour, the pains having come on about 2 a.m. After giving a subcutaneous injection of ergotine he ruptured the membranes and brought away the fœtus, which presented by the breech. The placenta followed immediately. There was hardly any hæmorrhage from the vagina, but a great deal through the drainage tube, and the patient was very faint after delivery. The child, a male, showed no sign of life, but was not decomposed. Length 16½ inches, weight 2¾ pounds. Later in the morning, at 10.45, she was still very faint, but could keep down beef tea, milk, and brandy. There was still some hæmorrhage through the drainage tube, but in diminished quantity. Temp. 98·7°, pulse 142. In the evening she seemed wonderfully strong and free from sickness. Temp. 99·4°, pulse 136. Wound dressed antiseptically.

On the morning of the 23rd temperature had become normal, 98·4°, pulse 136. There was no sickness nor pain, and she still seemed wonderfully well, and had had a good night. Hæmorrhage through the tube, however, still went on during the day and following night. In the

evening she had become very feeble; temp. 99°, pulse 146, and she died at 5 a.m. on the 24th. On the evening of the 23rd the wound had been dressed antiseptically, and the glass tube replaced by a large india-rubber drainage tube. The discharge through the tube appeared to consist of pure blood, and was throughout quite free from smell. No autopsy was allowed, but it was noticed that the abdomen was considerably distended after death.

The hæmorrhage, which appeared to be the cause of death, was probably due to the shrinking of the uterus in the expulsion of the fœtus, and consequent further detachment of the extra-uterine placenta from its posterior wall. It would seem that the patient might have been saved if this had not occurred.

I think that one or two points in reference to the operation of abdominal section for extra-uterine fœtation are suggested by the present case. First, that if the fœtus be enclosed only in thin membranes, and not in any firm adventitious sac, it would be useless to attempt to stitch the membranes to the external wound, shutting off the peritoneal cavity, and to drain the cavity of the membranes only. Supposing the placenta to become disintegrated, the products of the disintegration would probably reach the general peritoneal cavity, as the effused blood had in this instance, rather than get into the amnial cavity by breaking through the amnion. It may be a question whether, if the funis were cut short and the wound completely closed, supposing the antiseptic method to be perfectly carried out, the placenta might not remain quiescent without decomposing, as it does in those cases in which both fœtus and placenta are retained for years within the abdomen.

Secondly, it would seem that in this case hæmorrhage from the site of detached placenta was still going on up to, probably, seven days after the death of the extra-uterine fœtus. Hæmorrhage has also been the cause of death in other cases of abdominal section for extra-uterine

fœtation, as in that recorded by Dr. Gervis, even when the placenta has been left alone as far as possible. I think it may be inferred that if hæmorrhage is going on at the time of operation, and its site can be detected, or if it is caused by unavoidable partial separation of the placenta in carrying out the operation, it may be desirable to apply some styptic, as subsulphate or perchloride of iron, to the bleeding site. The persistence of hæmorrhage in this instance would hardly be encouraging for the plan of separating the rest of the placenta, even if part had been spontaneously or accidentally detached, in the hope that hæmorrhage would afterwards cease.

It will be noted that in the present instance there was no history of previous difficulty of conception or a preceding period of sterility of some years, as there often is in cases of extra-uterine pregnancy. On the contrary, including the extra-uterine fœtus, the patient had conceived four times within two years. This circumstance may perhaps be connected with the ectopic fœtation occurring in a case of twins, and it is remarkable that the only two similar cases in which I have been able to find an exact record of previous pregnancies corresponded with mine in this particular. In one of these delivery at full term had occurred six months before the twin conception, of which one ovum was extra-uterine; in the second a miscarriage had happened only two months before. According to Dr. Parry's statistics, out of 500 cases of extra-uterine fœtation there were twenty-two cases of combined extra-uterine and intra-uterine pregnancy, and probably two other cases in which two fecundated ova both remained outside the uterus. From these data it would follow that twin conceptions are at least four times as frequent in extra-uterine as they are in normal fœtation, the general average of twin pregnancies being about one in ninety. This is evidence in favour of the view that one ovum may impede another in entering or passing along the Fallopian tube; and in the present case the extra-uterine fœtation may have been due to this cause

rather than to the effect of any adhesion or to organic impediment to the patency of the Fallopian tube.

The lengths and weights of the two fœtuses appear to correspond with the view that both were conceived at the same time, and that the time corresponded with the supposed duration of pregnancy, namely, about six and a half months. The slight inferiority in length (14½ compared with 16½ inches) and considerable inferiority in weight (1½ compared with 2¾ lbs.) of the extra-uterine fœtus may be accounted for by the greater difficulty of its nutrition, owing to its abnormal position. This would probably have more influence when another fœtus existed in the uterus than in cases where an extra-uterine fœtus is alone present. The comparatively small bulk of the extra-uterine fœtus may to some extent account for the fœtal heart not having been detected over the extra-uterine sac, while it was easily heard over the uterus.

Among similar cases recorded, I have not been able to find one in which a complete diagnosis was made while both extra-uterine and intra-uterine fœtus were within the abdomen, and the reports of several of them show that the complication has been found perplexing.

In the fifth volume of our 'Transactions' Mr. L. R. Cooke records a case of a woman 39 years old, in which, at the onset of labour, the pelvis was found occupied by a tumour. Suspecting extra-uterine fœtation, he sent for Dr. Greenhalgh, who thought that the case was probably one of ovarian tumour complicating pregnancy. He sent also for Mr. Spencer Wells, who detected a double fœtal heart, and thought that there was twin uterine pregnancy. The double fœtal heart had put him off the scent, since it did not occur to any one that one fœtus might be inside the uterus and the other out. Eventually delivery was accomplished by Dr. Greenhalgh by pushing up the tumour and extracting by version. The patient died in forty-eight hours, and an extra-uterine fœtus was found at the autopsy.

In the 'Lancet' of June 20th, 1863, Mr. J. Pennefather records the case of a lady aged thirty-eight, who became

pregnant in October, 1861, after a miscarriage in August. On April 3rd she was attacked by violent pain, followed by enormous distension. She was, however, delivered normally of a full-grown female child on September 4th. A swelling was still felt in the abdomen, and Mr. Pennefather heard the fœtal heart, and diagnosed the extra-uterine fœtation. Dr. Oldham afterwards saw the patient, and thought it a case of ovarian tumour. Dr. Ramsbotham also saw her subsequently, and agreed with Mr. Pennefather. The patient suffered from hectic up to February, 1863, when a puncture was made by trocar, but only fæces passed through it. Subsequently fœtal bones escaped through the vagina, and fæces for some time passed the same way, but on May 14th, the date of the report, the patient was doing well.

Dr. Sale records the case of an unmarried Negress, in whom extra-uterine fœtation was diagnosed. Abdominal section was performed, and a living extra-uterine fœtus, with the placenta, was extracted. The uterus was then found to contain another child, whose existence had not previously been suspected. This was removed by hysterotomy, and the patient died on the fourth day from septicæmia ('New Orleans Medical Journal,' October, 1860, and 'Brit. & For. Med.-Chir. Rev., January, 1872).

In a case recorded by Deocene, according to Parry's report, the history was similar, but I have not been able to refer to the original account of this, Dr. Parry's reference being incorrect.

It is to be observed that in most of the cases the extra-uterine pregnancy seems to have been of the abdominal variety, and to have gone on up to the time of labour without causing any very dangerous symptoms, if not interfered with.

Thus, in a case recorded by Dr. Satterthwait, that of a woman aged thirty-five, nothing was discovered during the pregnancy, but a severe instrumental delivery, occupying from eight to ten hours, was required. This was followed by a dangerous illness of five or six weeks, and an enlarge-

ment in the abdomen was discovered. Eventually the fœtal bones were passed or extracted by the vagina and rectum, and the patient recovered ('New York Medical Journal,' 1872, vol. xvi). Dr. Starley reports a case in which the tumour was only noticed after the delivery of a living child. Movements of the extra-uterine fœtus were felt up to within a few days of the time when he saw the patient, which was seven weeks after delivery. She was thought to be too exhausted to survive surgical interference, and died two days later ('New York Medical Journal, March, 1873). In a case recorded by Dr. London, and reported by Dr. Campbell, in his 'Memoir on Extra-Uterine Gestation,' p. 65, and in one recorded by Dr. Pollak ('St. Louis Medical and Surgical Journal,' May 10th, 1871), the extra-uterine tumours were also not discovered until after the labour, and this was so also in a case recorded by Mr. J. Clarke ('Medical Times and Gazette,' December 13th, 1856).

In a recent case, recorded by Dr. Wilson ('American Journal of Obstetrics,' October, 1880) the patient was delivered of her fourth child one month before full term. A tumour distinct from the uterus was detected for the first time in the abdomen after delivery, and was found to contain a still living child. Abdominal section was performed twenty-six days after delivery and a living child extracted. The cyst was considerably adherent, and was stitched to the abdominal wall. An inch of the wound was left open, with the funis passing through it. The discharge became offensive, and febrile symptoms arose. Three days after the operation an attempt was made to remove the placenta after opening up the wound, but hæmorrhage compelled its abandonment. The patient died ninety hours after the operation. The placenta was found in three parts, attached to the left side of the uterus, the left Fallopian tube, and left iliac fossa.

In the present case the occurrence of hæmorrhage was probably due to the extra-uterine placenta having been attached in part to the external surface of the uterus.

The intermittent contractions of the uterus during pregnancy would be not unlikely to cause some detachment or rupture of vessels.

In most, if not all, of these cases the extra-uterine and intra-uterine fœtus would seem to have been twins, and this would agree with the view of possible causation by the interference of one ovum with the other. The following case, however, appears to prove that ovulation may sometimes occur during the development of an extra-uterine fœtus. It is related by Dr. Frank Argles in the 'Lancet' for September 16th, 1871. The patient was believed to be pregnant, and the movements of the child ceased on April 10th. Three days later an ovum of two months' development was expelled from the uterus. Death took place on July 9th, and at the autopsy an extra-uterine fœtus of about seven months' development was discovered.

Dr. Routh thought it would be a pity, if so superior a paper as Dr. Galabin's should pass without discussion. He could not but congratulate Dr. Galabin on his skill and powers of diagnosis, as he was the only one who had diagnosed the extra-uterine pregnancy. He would, however, venture to make one suggestion, and that was as to the hæmorrhage. This, which occurred at first before the labour of the second child, would not possibly have proved fatal, but it was no doubt materially increased by the contraction of the uterus after the labour (if he understood Dr. Galabin right). The placenta of the extra-uterine child was attached both to the abdominal parietes and the uterus itself; therefore, as the uterus contracted, the placenta must in part have been more separated, hence the cause of increased hæmorrhage. Now, he thought if the abdomen had been then reopened, and the hæmorrhage found out, it might have been arrested by the actual cautery. To re-open the abdomen after ovariotomy was sometimes advantageous, even in cases of peritonitis—as had been proved by foreign operators, and here Dr. Prothero Smith had done so successfully in another case of ovariotomy and reopened the abdomen and saved life. So much being admitted, could not the actual cautery have been used here also to arrest the hæmorrhage? He remembered a case of ovariotomy by Mr. Baker Brown, in which he (Dr. Routh) had assisted him, and where the adhesions to intestines, parietes, and even liver were numerous (eight or ten), in which

hæmorrhage occurred, and where all was arrested readily by the actual cautery, and the patient made a perfect recovery. Portions of uterus he had also seen cut away in ovarian or fibroid operations, and the bleeding in like manner arrested by the actual cautery. Perhaps if this could have been done here, the patient, who evidently died from the bleeding, might have been saved.

The PRESIDENT regarded uncontrollable hæmorrhage as the great difficulty in surgical interference with extra-uterine pregnancy, and this even many months after death of the fœtus. He did not look with much hope on the actual cautery as a means of arresting this or any kind of hæmorrhage. In his wards he had lately seen it used in vain by Mr. T. Smith in an oozing from the liver in ovariotomy; and he had, the previous day, found it inefficient in controlling the hæmorrhage from a vessel injured in removing a small piece of lupus of the vulva.

Dr. GALABIN said that, on account of the distance of the patient, he had not had the opportunity of deciding on the expediency of reopening the abdomen. He thought that a styptic, such as perchloride of iron, would be more effectual than the actual cautery in arresting hæmorrhage in such a case.

STATISTICS OF MIDWIFERY IN PRIVATE PRACTICE.

By GEORGE RIGDEN,

SURGEON TO THE CANTERBURY DISPENSARY.

BELIEVING that the following record of midwifery cases that have been under my immediate care during the last forty-three years, viz. from 1838 to 1880 inclusive, might be of some value to the Society, I have made a rough analysis of them, and regret that more minute records were not always made at the time of their occurrence, so as to make the report a more valuable addition to the records previously prepared by Drs. Rose, Godson, and others, which have already been published in the annual volume of 'Transactions.'

This midwifery practice has been among all classes of

the community residing in this city and immediate neighbourhood, with the exception of the absolute paupers. And, as there is no lying-in institution in this neighbourhood, they have all been attended at their own homes.

During this period I have personally attended 5682 women who have been delivered of 5751 children, viz. 2947 males and 2804 females—65 of these were twin cases, one mother giving birth to twins four times, viz. at her second, third, fourth, and fifth confinements, and never after becoming pregnant, and there were two cases of triplets, the six children being born alive.

5422 children presented with some part of the head, including the face.

156 were cases of breech presentation, including the hips and loins.

89 were presentations of the inferior extremities, including the knees and feet.

84 were presentations of the superior extremities, including the shoulder, elbow, and hands.

Some of these cases were complications of two or more of these divisions.

There were 45 cases of placental presentation, either entire or in its greater part, and these cases are included in the above division.

255 of the children were stillborn, 165 being premature, at periods of pregnancy of six and a half to eight months, many of which were probably expelled in consequence of their death, and 90 others were stillborn, but for which no cause is assigned in the record. 105 of the children had been dead a considerable time previous to their expulsion, as is evidenced by its being recorded that the cuticle was separating.

The stillbirths were consequently in the proportion of one in twenty-two, or about 4·4 per cent.

56 of the stillborn children were delivered by version; 19 were presentations under the first division, viz. the head, forehead, or face; 26 were under the fourth division, viz. shoulder, elbow, or hand; 4 were presentations of

both arms and face; and 7 were cases of placental presentation.

259 of the children were delivered with the forceps, and in 2 cases the head had to be perforated previously to delivery. In no case has premature labour been intentionally brought on by manual, instrumental, or other means.

In the first 2000 cases, or those previous to the year 1860, the forceps were used but nine times, or about once in 222 cases, while during the last twenty years this instrument has been had recourse to 250 times, or about once in fifteen labours. The proportion of stillborn children was but very slightly in excess during the former period in comparison with the latter, but I do not attribute this slight advantage to the more frequent use of the forceps, as something may be due to more mature experience in the management of these cases. The mothers have, however, derived considerable advantage by having their sufferings and anxiety relieved much more quickly, with less labour to themselves, and consequently their convalescence has been less protracted.

In the early part of my practice ergot was very frequently, and the tractor occasionally, though but rarely, used, but I could never obtain the certain advantages from either that I expected and wished for, so that for the last twenty years I have entirely abandoned the use of the latter, and have only occasionally administered the ergot, placing my entire confidence in the forceps as the most efficient expedient for accelerating the labour when necessary.

The proportion of stillborn children appears to be large as compared with some statistics previously published, but it must be borne in mind, not only that a very large proportion of these were premature, but that they were all attended at their own homes, many of which with very incompetent nurses, so that it has not been uncommon to find a child expelled with the cord tight round its neck previous to my arrival, or to find the child smothered in

the bed-clothes. It is quite evident that the forceps cannot have increased the infant mortality, but more probably has reduced it, inasmuch as the infant mortality in the forceps cases, which would certainly include those the most difficult, was but in the proportion of one in seventeen.

Of the craniotomy cases, the first occurred many years since in the person of a primipara aged about twenty-five. She had been in labour many hours, and although I was assisted by two experienced practitioners we were unable to place the forceps firmly over the head, which, apparently from its extreme size, would not enter the pelvis. This person made a good recovery, and has since given birth to several living children without much difficulty. The second case occurred but a few years since in the person of a woman, aged about twenty, who had previously given birth to a living child at full term. This was a breech presentation, and the body of the child being already born, it was found impossible to make the head enter the pelvis. There could be no doubt of the child being already dead, therefore the head was perforated, and an enormous quantity of serous fluid escaped, showing that the difficulty was occasioned by the child being hydrocephalic. This woman has since given birth to a living child at full term without much difficulty.

The placental presentations may be divided into two divisions, viz. first, where the placenta was only in part over the os uteri, and the hand could be insinuated between it and the uterus, the child was delivered as early as possible by version, and the placenta afterwards removed, and with but very few exceptions these children were born alive; and secondly, where the placenta was entirely over the os uteri and actually bulging into the vagina, of which there are seven cases recorded, the placenta has been removed previously to the removal of the child, and in all these cases the child was stillborn. The danger from this complication is entirely due to hæmorrhage, but there have certainly been no maternal deaths from this cause, nor have

there been any cases of sufficient danger to be noted in the record. My practice has invariably been—if the os uteri is sufficiently dilated, or if not, to dilate it either by plugging or by the fingers—to empty the uterus by turning as early as possible, and on no account to leave the patient until the uterus has firmly contracted. There is no doubt but that this practice, although possibly attended with some disadvantage to the child, has materially contributed to the safety of the mother. Exceptions to this treatment have only occurred where the hæmorrhage has been very slight, and these cases may often best be treated by entire rest in the recumbent position which will generally enable the mother to go to her natural term in safety both to herself and her infant.

There have been 13 maternal deaths from various causes, viz. 2 from puerperal convulsions and coma, 5 from puerperal peritonitis and fever, 2 from heart disease and dropsy, 1 apparently from fright, 1 from cancer of the tongue, 1 from bronchitis, which had exhausted the woman previous to the commencement of labour, and 1 from scarlatina.

Of the cases of convulsions, &c., the first was an imbecile unmarried female, aged about nineteen years, in labour with her first child. She had been subject to epileptic fits for several years. She continued to have convulsions every few minutes during her labour, but was delivered by the natural efforts in one of them. She became, however, comatose, and died about six hours after the termination of her labour. She was bled, ice applied to her head, and a large dose of calomel administered, but without any beneficial effect. The second case was in the person of a mother, aged about twenty-three, who had previously, with the aid of the forceps, given birth to a living child. Her labour on this occasion was natural in all respects and terminated by the natural efforts. The convulsions did not commence until twenty-four hours after the termination of the labour, but continued with slight intermissions for twelve hours, when she died

in a state of coma. She was treated with bleeding from the arm, cold application to the head, and calomel administered. Five other cases of convulsions during labour are recorded, which were treated in the same manner and recovered.

The first case of peritonitis occurred in excessively hot weather in a badly ventilated apartment—a primipara, aged about thirty, delivered, after a very protracted labour, with the forceps of a living child. On the third day after her confinement rigors appeared, followed by peritonitis and fever, which terminated fatally on the seventh day after labour.

The second case of peritonitis was in the person of a primipara, aged about twenty-five, delivered by the natural efforts and without difficulty of a living child. It appeared that her attendants were not sufficiently careful about the proper airing of her clothing, and that a chill was produced on the second day, which quickly terminated in peritonitis and fever, and proved fatal on the sixth day after delivery.

The third case of peritonitis was in the mother of several children. She was delivered by the natural efforts without difficulty, and continued to progress favorably for the first week, when, without any apparent cause, peritonitis and fever supervened, and terminated fatally fourteen days after her confinement.

The fourth case of peritonitis was in the mother of several children. After a favorable labour and delivery by the natural efforts, she caught cold without any apparent cause, which produced peritonitis and fever, from which she died on the eleventh day after her confinement.

The fifth case of peritonitis was in a case of a woman with a very contracted pelvis, who had upon a previous occasion been delivered with the forceps, but not without much difficulty, of a stillborn child. In this her second labour there was even greater difficulty, in consequence of the extreme size of the head, but delivery of a living child was ultimately effected, but not without considerable

injury to the vaginal passage. Peritonitis supervened on the third day, and terminated fatally on the eighth day after labour. In this case, as the result proved, it would have been more advantageous to the mother had the perforator been used instead of the forceps.

There was a considerable interval between each of these cases, and no suspicion could be entertained of their being caused by contagion.

Of the two cases of advanced heart disease and dropsy, the first was in the person of a mother, aged about forty, who had previously given birth to several living children. Her labour was natural, terminated without difficulty, the after-birth removed, and everything seemed satisfactory. When I was about to leave the room it was observed that she breathed with difficulty, syncope soon supervened, from which no efforts could recover her, and she died within two hours after the termination of the labour. The uterus remained perfectly contracted, and there had been no hæmorrhage. The second case, of heart disease, had been confined fourteen days, and was in a fair way of recovery when death took place suddenly from syncope.

One death appeared to result entirely from fright. A primipara, aged about twenty, had been confined without difficulty two days previously to a violent thunder storm passing over the city. She was of a very nervous temperament and was much alarmed. Hysteria supervened, followed by exhaustion, from which she could not be rallied, and died four days after delivery. There had been no hæmorrhage or other untoward symptom to account for her exhaustion.

The case of cancer of the tongue was of a very distressing character, as it had been impossible to administer food by the mouth for several weeks previously. She was the mother of several children, and aged about forty. Her exhaustion was so extreme that delivery required to be effected with the forceps, by which a living child was born. The mother died fourteen days after delivery.

The case of bronchitis was in the mother of several

children. She was about thirty years of age, and was delivered by the natural efforts of a living child. The bronchitis had existed for several days previous to the commencement of labour. She died four days after her confinement. She belonged to the poorer class of inhabitants, and probably did not obtain sufficient nourishment to sustain her powers.

The case of scarlet fever was in the person of a mother of several children. She was between thirty and forty years of age, and had not previously been afflicted with the disease. She was evidently infected by the disease in her own family at the time. The first symptom of the disease appeared on the fifth day, and terminated fatally on the tenth day after her confinement. Only one other case of this disease at or about the time of labour has occurred in my practice, and this woman recovered.

Two women were attacked with variola in a modified form after vaccination at the period of their confinements; they convalesced, however, favorably, and were reported, with others of a similar character, in the 'British Medical Journal' for February, 1877.

I have no record of cases of measles occurring at the period of parturition.

There is no doubt but that many of the above midwifery cases occurred during epidemics of these diseases, to which the mothers must have been to some extent exposed, but their immunity was probably due to their being protected by having gone through the disease previously.

In three only of the maternal deaths were the women delivered by the forceps or any other instrumental assistance. The first case of peritonitis was delayed too long before the forceps were applied. The fifth case of peritonitis would probably have terminated more favorably for the mother if the perforator had been used instead of the forceps, but in this case it was impossible to obtain a second professional opinion, without which, unless the child is known to be dead, one is naturally reluctant to inflict so serious an injury upon it. In the case of cancer

of the tongue, the forceps were most urgently needed, and the mother must have died undelivered but for their assistance.

Dr. EDIS thought great credit was due to Mr. Rigden for the exceedingly small maternal mortality—only 13 out of 5682 deliveries. It was curious to note that the proportion of still-births did not vary with the change from ergot to forceps. In the first 2000 cases of delivery the forceps was only employed nine times, whereas in the last twenty years it had been used 260 times, or once in every fifteen cases. Mr. Rigden hazarded the remark that forceps had not increased the infant mortality. Dr. Edis believed that the judicious and timely application of forceps seemed to diminish materially both the infant and maternal mortality, more especially in large cities, where so many defective hygienic surroundings tended to deteriorate the general health and lower the standard of vitality. The time for discussion being so limited, Dr. Edis would not take up the time of the Society with any further remarks.

Mr. RIGDEN, in reply, stated that the infant mortality was rather less in the second than in the former period, but the more frequent use of the forceps during the second period resulted in very great advantage to the mother by diminishing her sufferings and expediting her convalescence.

JUNE 1st, 1881.

J. Matthews Duncan, M.D., F.R.S. Ed., in the Chair.

Present—35 Fellows and 5 visitors.

Books were presented by Mr. T. M. Dolan, Prof. G. Ercolani, Dr. Vincenzo Maggioli, and Dr. James Murphy.

James H. Jeffcoat, M.R.C.S. (Fort Pitt), was admitted a Fellow, and Thomas Hopcroft, M.R.C.S. (Derby), and P. B. Tuthill, M.D. (Fort Pitt), were declared admitted.

The following gentlemen were proposed for election :— James Alexander Close, M.B. (Illinois), and James Gideon Creasy, M.R.C.S. (Brasted, Kent).

DEPRESSION OF CHILD'S HEAD BY FORCEPS.

Dr. Godson presented a cast of the child's head, showing a depression after delivery by forceps, which he had shown at a previous meeting of the Society.

HISTOLOGY OF CANCER OF THE BODY OF THE UTERUS.

Dr. Galabin showed microscopic sections from two cases of cancer of the internal surface of the body of the uterus, illustrating the commencement of the disease in the form of cylinder-epithelioma, which, later on, merged into

medullary carcinoma. The tissue in both cases was removed by curette. The first patient was a married woman, forty-eight years old, mother of four children, and had suffered for six months from constant metrorrhagia. The uterus was quite movable and but slightly enlarged; the cervix was affected by ordinary granular inflammation only. The sections showed tissue differing but slightly from the mucous membrane of the body of the uterus. The glands were proliferating and divided its compartments by upgrowth of processes from their walls. In several places this upgrowth of processes gave rise to the appearance in the sections of one circle or tube of epithelium within another. A still more decisive evidence of malignancy was given by the occurrence in one or two places of groups of epithelial cells in the stroma. The second patient was a virgin, aged fifty, who had had metrorrhagia for more than a year. The uterus was fixed and nodular externally. In this instance the glandular arrangement of the cells was still evident in many parts, but much less regular, and the stroma was infected by many epithelial masses, in which the glandular appearance was lost. He had found cancer of the body of the uterus relatively not uncommon in virgins, while he had hardly ever met with the ordinary cancer of the cervix when there was evidence of virginity.

Dr. WILTSHIRE thought the matter important in reference to the removal of such growths from the interior of the uterus; and he related particulars of a case he had seen in consultation with Mr. E. White and Dr. Braxton Hicks, in which, after thorough removal of the malignant growth and the use of perchloride of iron, the patient, a lady sixty years of age, lived three years all but one month. Cancer of the body of the uterus were often obscure, but when diagnosed, thorough removal was desirable where practicable.

Dr. CLEVELAND ventured to hope the time would come when such an exact diagnosis of the disease in its early stage might be established as to warrant recourse to more radical measures than had been carried out by Dr. Wiltshire. He thought that even the risk attending the entire removal of the uterus might be preferable in well selected cases to the distressing symptoms,

followed by certain death, that ensue under the ordinary course of the malady.

Dr. Heywood Smith added his testimony to Dr. Galabin's as to cancer of the fundus occurring more frequently in virgins. and cited the case of a lady, aged fifty, who was the subject of cancer of the body of the uterus where the cervix was healthy, He considered that where such cases could be diagnosed sufficiently early, the uterus should be removed, leaving the healthy cervix as a stump.

Mr. Doran insisted on the importance of recognising the fact alluded to by Dr. Galabin, that cancer of the cervix uteri was almost peculiar to impregnated women; since it is among such that we likewise find so frequently the numerous forms of "erosion" of the os externum, once called ulceration. Through the observations of Sir James Paget and Mr. Butlin, pathologists had become aware that a disease of the nipple closely simulating eczema is a frequent herald of scirrhus of the breast. Protection of the inflamed patch of integument and the application of simple cooling lotions often cured this eczematous affection, which otherwise might have developed, more or less directly, into scirrhus. It is very necessary, therefore, to examine most carefully any obstinate erosion or granular patch in the neighbourhood of the os externum, and to attempt to establish a distinction, if there be any, between simple erosion and the form which precedes cancer. The cure of such a form might absolutely avert malignant disease, and such a cure involves the most perfect possible protection of the part from the irritation both of morbid discharges and of irritating applications.

SPECIMEN OF UTERO-VAGINAL RUPTURE:—PLACENTA PRÆVIA, MULTIPLE FIBROIDS WITH DEFORMED FŒTUS, SO-CALLED CRETINOID.

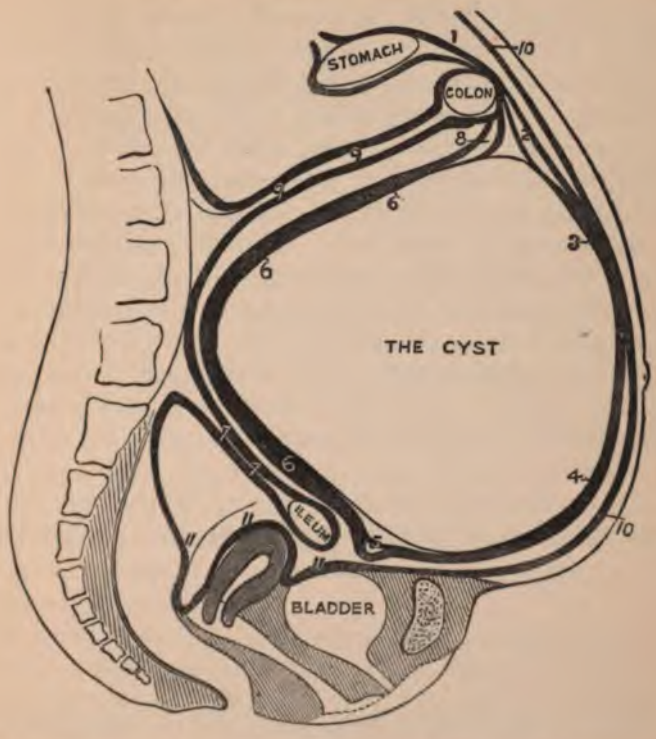
Dr. Wiltshire showed specimens as above, from a case which occurred in the Maternity Department of St. Mary's. It was her ninth pregnancy, and a week before, patient fell over one of her children—an idiot. On the arrival of a student placenta was found in vagina, with much hæmorrhage. The obstetric house-surgeon delivered speedily the head, which was low down, the placenta having already previously been expelled spontaneously. Hæmorrhage,

however, continued, and when Dr. Wiltshire visited the patient, shortly after delivery, she was rapidly sinking. Post mortem the lacerations shown in the specimen were found, together with many small fibroids, and the uterus was very large and thick.

Dr. Heywood Smith would remind the Society of two cases which Dr. Wiltshire and he brought forward some time ago, where rupture took place in his case, with placenta prævia, at the passage of the head, where no instruments were used, and both cases recovered.

CYST OF THE GREAT OMENTUM.

Mr. Alban Doran exhibited for Dr. Bantock a large, thick-walled, single cyst, removed from a woman, æt. 58. For many years she had suffered from symptoms resembling those of cystic ovarian disease, and two years before operation the cyst had ruptured and filled again. She had been tapped several times by Mr. Goodall-Copestake, of Derby, dark serous fluid being removed. On May 28th 1881, Dr. Bantock operated, with the assistance of Mr. Doran. A large cyst was found, very intimately adherent near the umbilicus to the parietal peritoneum; the adherent tissues were much thickened and calcified. The abdominal wound had to be extended, owing to great difficulty in separating the tumour from its connections; when this was done the relation of the cyst to the peritoneum was found to be as follows:—The great omentum was normal from the greater curvature of the stomach to its usual adherence to the transverse colon, but could be traced as a thickened and calcified sheet on to the top of the cyst, which proved to be entirely within the omentum, for that serous membrane passed partly in front of the cyst, then hung as a characteristic fatty and membranous mass from the lower border of the cyst, and thence passed upwards



Dr. Bantock's case of cyst of the great omentum, showing the disposition of the peritoneum as discovered during the operation.

1. Omentum between stomach and transverse colon (normal).
2. Omentum, from its normal adhesion to colon to the cyst (much thickened and partly calcareous).
3. Intimate adhesion of parietal peritoneum, omentum, and cyst-wall.
4. Descending layers of omentum, adherent to cyst and inseparable.
5. Lowest part of omentum, almost normal, and not adherent to pelvic peritoneum.
6. Ascending layers of omentum, adherent to cyst, and inseparable.
7. Mesentery partly adherent to omentum behind cyst. It completely excluded the cyst from the pelvic peritoneum and organs.
8. Ascending layers of omentum (inseparable) going to divide in front of colon, to form—
9. Transverse mesocolon (normal, but slightly adherent to 6);
10. Parietal; and—11. Pelvic peritoneum.

over the back of the cyst, uniting firmly at the upper limit of the tumour with the front portion of the omentum, continuous with the part descending from the colon and stomach. A fold of mesentery completely separated the tumour from the pelvic organs, where the uterus, ovaries, tubes, and peritoneal folds were absolutely normal. The tumour was partly adherent to this fold of mesentery and to the transverse mesocolon. A drainage tube was inserted for twenty-four hours, and the patient, four days after the operation, was progressing very favorably.

To illustrate this rare affection, Mr. Doran also exhibited a Hunterian specimen (No. 1109, Pathological Series, Mus. R.C.S.), to which no clinical history was given; it showed very clearly a small cyst entirely in the folds of the great omentum.

The diagram explains the relations of the cyst in Dr. Bantock's case, as detected in the course of the operation.

MARSHALL'S PATENT SECTIONAL FEEDING BOTTLE.

Dr. Godson showed a new feeding bottle, possessing the advantage of having a movable front, enabling the fingers to be introduced and reach readily the whole interior for cleansing purposes, thus obviating the use of the bottle brush. These bottles would shortly be retailed, at about one shilling each, under the name of "Marshall's Patent Sectional Feeding Bottle."

NOTES ON A CASE OF PLACENTA PRÆVIA COMPLICATED BY A LARGE MYOMA.

By J. Hickinbotham, M.D.,
PHYSICIAN TO THE BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.

The following case illustrates certain important facts in uterine pathology; and it presented unusual difficulties both as regards diagnosis and treatment. I therefore think that my notes will be of interest to obstetricians.

At noon on the 12th of March, 1880, I was called to see a young lady of small stature and extremely delicate appearance in her first labour at term—she had previously aborted. The gentleman in attendance told me that she had been in labour about six hours, and had lost a considerable amount of blood. He had recognised the case as one of placenta prævia.

The patient's condition was somewhat alarming; there had been several gushes of hæmorrhage, which had left her face pale, and her pulse feeble and quick. An examination showed the os uteri large enough to admit two fingers, and very soft and dilatable. The placenta presented completely, no edge could be reached, and its thinnest part seemed to be in the middle; through this I could feel a rounded mass, which I supposed was the fœtal head.

The patient was placed under chloroform and the os dilated, but I was still unable to find the edge of the placenta, and therefore decided to break through its substance in the central thin part, push back the head, seize a foot, and deliver as rapidly as possible. When, however, I had torn my way through the placenta, I discovered that the hard round mass, which had been taken for the fœtal head, was a large tumour, upon which the afterbirth was uniformly attached. With a good deal of trouble I got my fingers between it and the pubis, and

reached a shoulder. The extreme difficulty of this manœuvre convinced me that any attempt to save the child would be utterly useless, and I therefore completed the delivery of the placenta, after which the hæmorrhage greatly abated. I now inserted two fingers of my left hand, and with my right upon the abdomen, managed to seize a foot, and eventually succeeded in getting down the body. As the head resisted all the traction I deemed it prudent to employ, I passed a perforator and pierced the cranium through the occipital bone.

The space between the tumour and the pubes was too small to admit any form of forceps, so I used a small crochet, and having obtained a purchase, by carefully pulling upon it whilst my friend pulled the body, we managed to extract a small but perfectly formed child.

A terrible attack of septicæmia followed, and for a fortnight I almost despaired of the patient's life. She had high temperature, quick, feeble pulse, and profuse offensive discharge. No milk was ever secreted. From the first, intra-uterine injections were gently and carefully used as often as three and four times a day. Ergot, sulphocarbolates, and quinine were administered in full doses, and nutrient enemata given until the stomach was able to retain food.

I soon became aware that the tumour was sloughing, and an examination four days after labour showed that it was, to a large extent, extruded through the os. Being unable to find anything like a pedicle, I painted the whole of the presenting surface with pure carbolic acid and gave an opiate. The next day she was markedly better.

On the tenth day I was able to hook down and extract a mass, the size of a small orange, soft, easily broken up, and horribly fetid, but still there was a thick stump filling the dilated cervix; to this I applied carbolic acid. Two or three days after I was not able to detect any remnant of the tumour, and the os uteri was entirely closed. In three months the uterus was freely mobile and its cavity of the normal length.

The patient called upon me yesterday (Feb. 22nd, 1881) and tells me that she has never menstruated since her confinement, but has felt tolerably well. She has not regained her colour, but looks sadly anæmic; however, as she is able to take long walks, and eats and sleeps well, I trust that her recovery will soon be complete.

The case is interesting, both in pathology and treatment. That a placenta should be attached over a tumour in the posterior wall of the uterus, and also completely involve the os, is a condition which, as far as I know, has not been described.

With regard to treatment, it is difficult to make up one's mind. Had the presence of the tumour not been masked by the placenta (or, in other words, had the placenta been normally placed) so that the relations of the tumour could be made out, I should assuredly have preferred to perform abdominal section, both for the sake of saving the life of the child and of preserving the mother from the almost certain dangers of septicæmia, which would follow the inevitable injuries to the tumour.

But *with* the placenta prævia, and partially detached from the surface of the tumour, I felt (and still feel) that I adopted the better course in endeavouring to complete the delivery *per vias naturales*.

The result is gratifying in that the tumour has been cured, as well as the life of the woman saved.

Dr. Barnes observed that no general rule could be laid down for the management of labour complicated with fibroid tumours of the uterus. The conditions varied so much that we must be governed by the estimate formed at the time of the nature of the case. The complication was always dangerous; even when the tumour was seated at the fundus, not obstructing the transit of the child, the tumour might fall into necrosis and cause septicæmia. Occasionally the tumours would shrink after labour; of this he had recently seen an example. Occasionally they would undergo necrosis and spontaneous enucleation, and thus end well. In the presence of labour obstructed by a tumour in the lower segment of the uterus, we may in some cases, after dilating well, push the tumour out of the way and deliver after

craniotomy, or by turning. Enucleation might be available, but in extreme cases it might be necessary to resort to Cæsarian section; and in such cases it ought to be considered whether it would not be better both for the immediate and future welfare of the patient to carry out Porro's operation, that is, to remove the whole uterus with its tumour.

Dr. HICKINBOTHAM said that the size of the tumour, and especially its wide base, forbade the possibility of enucleation. Moreover, he had a great dread of septic poisoning after the enucleation of myomata. With reference to the remarks of Dr. Barnes, he was glad to find that he agreed with him as to the advisability of the Cæsarian section, but he would hesitate to follow it by extirpating the uterus itself, as the results of the operation seemed to him very unsatisfactory; and he believed that all the advantages to be obtained by such removal could be ensured with far less risk by the removal of the ovaries and tubes, which would ensure future sterility, and most probably be followed by shrinking of the tumour and immediate suppression of hæmorrhage.

NOTE ON THE SO-CALLED "LITHOPÆDION" BEING A SUPPLEMENT TO THE AUTHOR'S PAPER ON SO-CALLED "MISSED LABOUR."

By ROBERT BARNES, M.D.

IN the discussion on my paper on "Missed Labour" two points arose which appear to demand and to admit of further elucidation. The first relates to the nature of the so-called "Lithopædion." The second relates to the occurrence of "missed labour" in the lower animals. If we ask what is meant by the term "lithopædion" and accept for reply the etymological meaning, a "stone-child," we have next to ask for the production of a specimen which fairly makes out its title to this designation. As I took occasion to observe, a "stone-child" should at least be "stony." Hence we must at once exclude the ordinary specimens of mummified and adipocerous embryos, as these

do not exhibit any calcareous change. The mummifying and adipocerous changes are those which commonly take place when the embryo is retained *in utero* for some months after its death. Perhaps the most typical examples are seen in those cases of twin pregnancy in which one embryo dies at an early stage, the other living on to full development when both are expelled.

Cruveilhier's dictum that the stone-conversion never takes place *in utero* is still unchallenged by facts. And now the question arises: Does the embryo ever undergo the stone-conversion under any circumstances? All the cases of so-called "lithopædion" have been found outside the uterus. The historical case of Dr. Cheston, described in the 'Medico-Chirurgical Transactions,' 1814, is undoubtedly one of extra-uterine gestation. This specimen (preparations, Nos. 2720, 2721, and 2722) in the Hunterian Museum I have examined, and by permission of Mr. Flower it has been minutely examined by Mr. Doran, who has favoured me with the following report:—"The abdominal viscera and thoracic organs are all quite soft but impregnated with lime-salts. The integuments and subcutaneous tissue of the front of the thorax and abdomen are very thick and infiltrated with lime-salts so as to feel gritty and friable. The integument and subcellular tissue of the *posterior* part of the body are very thin and converted into hard calcareous plates. In short, calcification is most advanced posteriorly, least anteriorly."

It deserves to be noted that although this case has often been cited as an example of missed uterine labour, it is not so described by Dr. Cheston, nor by Sir Wm. Lawrence, who presented the specimen to the College of Surgeons. Lawrence's mind did not lend itself readily to the reception of the marvellous; and the title of Dr. Cheston's memoir reveals philosophical caution; the title runs: "The history of a child retained in the mother fifty-two years after the usual period of utero-gestation," but he nowhere says that it had been retained *in utero*. Indeed, he describes the uterus as "though diminished in thickness, as still retaining

somewhat of its natural structure; the Fallopian tubes were healthy, the ovaries were not found." It was, therefore, in all probability, an example of abdominal gestation. The preparation 2721 is a portion of the "osseous cyst in which an arm and leg are tightly impacted and adherent to its walls. The walls of the cyst are a line in thickness and appear to be composed of true bone." This last statement no doubt requires correction; the condition is rather calcification. "The skin (preparation 2720) was in many parts adherent to the interior of the cyst and was torn in separating them." (Catalogue Hunterian Museum.)

Another specimen in the Hunterian Museum, No. 2719, is especially interesting. It presents the closest apparent realisation of a stone-child. It is a dry preparation. It is described in the catalogue as "a fœtus almost completely developed, but compressed and dried so that little more than the bones remain to indicate its previous form." There is no history of the gestation, and the fœtus does not appear to me to have exceeded seven months' development. Mr. Doran gives me the following report upon it:—"It is a skeleton much contracted, with the soft parts shrunken and calcified. It is this contraction of the hardened integuments on the bones that causes the entire fœtus to appear actually stony. If it be touched with a sharp-pointed instrument at any one point, whether on the cranium, trunk, or extremities, that point will be found to be brittle, and by no means remarkably hard. It represents an extreme degree of the condition seen on the dorsal integuments only of the specimen No. 2720. The calcification of the periosteum gives the bones their peculiarly stony feeling." The lungs are powdery and effervesce with hydrochloric acid.

In St. Thomas's Hospital Museum is another remarkable specimen, which was sent to me by Mr. Watkins, and exhibited to this Society (see 'Obst. Trans.,' vol. viii). This fœtus had been retained forty-three years in the abdomen. The following are the facts made out by myself and Mr. Stewart:—It has all the appearance of an

embryo which had reached full development. It is doubled up and compressed into a ball, enveloped in a sac, which fits so closely to its limbs, trunk, and head, that no more than the general outline of the parts could be made out. This envelope consists of the cyst wall and the chorion and amnion, and it has very generally undergone adipocerous and cretaceous metamorphosis, so that the mass looked at superficially might pass for a stone-child. But when we come to peel off this envelope we find that even this is only partly calcified; it can be peeled or dissected off the surface of the child as a flexible membrane, having many calcareous plates in it. In some places it is so intimately adherent to the child's skin that it can hardly be separated from it. In these places, especially the skin, is also marked by calcareous deposits. But still the skin itself can be dissected off from the deeper tissues as a flexible membrane, and is in many places apparently little altered. The scalp is in many places calcareous, and the pericranium is also hardened, but it can be detached from the cranium. The brain is soft, of a dark brown colour. The thoracic and abdominal viscera are soft and easily recognisable; and the muscles generally are little changed, they retain nearly their natural colour. Between the investing chorion and skin one makes out the vernix caseosa as having undergone calcareous metamorphosis. There is general more or less hardness of the specimen from loss of fluid, and special hardness in parts from cretaceous change.

The following facts result from the examination of these specimens:—1st. That the chief process of calcification takes place in the cyst walls and fœtal membranes. 2nd. That in a minor degree calcification takes place in the integuments of the fœtus, which in part coalesce in calcification with the envelopes and cyst walls. 3rd. That the deeper structures of the fœtus, including the viscera, become more or less impregnated with lime salts, without, however, becoming hard or stony.

From these facts, and from the application of known laws in the history of degeneration and metamorphosis, we may infer that: 1. There is no reason to doubt that the tissues of a dead fœtus long retained in the mother may become infiltrated with calcareous matter. We are familiar with calcification of the arteries, of fibroid tumours, of the placenta, and of other structures during life. 2. The more frequent change of the fœtus after death is certainly the adipocerous; and we require further evidence to justify the conclusion that calcification takes place in the tissues of the retained fœtus to more than a very limited and superficial extent. The superficial and partial calcification of the integuments was chiefly observed at points of contact and even of intimate adhesion with the cyst walls. It seemed, in fact, to be secondary upon, and to have arisen out of the previous change in the envelopes. It is now very well known that the placenta and chorion are especially prone to undergo adipocerous and calcareous changes. These changes I studied very carefully and described in the 'Medico-Chirurgical Transactions.' They may take place during the life of the organ. Thus I have seen not only multitudes of calcareous points and patches, but in some cases large portions of the placenta quite stony when the child was born alive. 3. It seems probable that the process in these cases of apparent fœtal calcification is, first, the death of the fœtus; secondly, the calcification of the envelopes and sac walls; thirdly, the partial change of the fœtus into calcareous matter, but never amounting to stone hardness, as in the case of the envelopes; this hardening being prevented partly, at least, by the protection against removal of the fluid elements of the fœtus by the closeness and density of the investing calcareous shell.

From the examination of these specimens, then, it is established—1st, that it is not correct to say that the calcification is limited to the membranes and cyst-walls; 2nd, that calcification may extend to the proper tissues of the

fœtus; but 3rd, that this extension is but partial and superficial, mainly limited to the skin.

A lithopædion, then, has at present no more than a potential or ideal existence. There may be reason to think that could the fœtus be retained long enough in such circumstances that the deep structures could part with their moisture, these too might become calcified. But this can hardly happen. Dr. Cheston's fœtus was retained fifty-two years and Mr. Watkins's forty-three years. It is not likely that, as far as time is concerned, the process of calcification to the point of producing a solid stone-child will ever have better opportunity of being completed.

I now offer a few remarks upon the supposed missed-labour in cows and ewes, and upon the analogical application to the theory of missed labour in woman.

In the Hunterian Museum are several interesting specimens in this connexion.

No. 2725 is "the os uteri of a cow whose uterus had contained twin calves for nearly two years." The specimen and the history are too imperfect to justify any conclusions.

No. 2726, "portion of a horn of uterus of a sheep, containing head and a foot of a lamb which had remained in the uterus beyond term and became adherent to surrounding uterine wall."

It may be doubted whether this and similar cases carry the evidence of protracted retention of a fœtus which had lived to the full term *in utero* in lower animals further than the evidence we possess of the same process in woman. The subject certainly deserves further investigation.

And supposing that "missed labour," in the full meaning of the term, be established as occurring in the cow and ewe, there is one consideration which should make us cautious in applying the argument of analogy lest we overstrain it. There are remarkable differences in the structure of the uterus in the cow and ewe and in woman. Even if we regard the horns of the uterus of the ruminant as the homologue of the horns of the human uterus, deve-

loped and long drawn out so as to hold the embryo, we still cannot help seeing that gestation in these horns is very different from gestation in the uterus proper of the woman. To prove that a mature fœtus may be indefinitely retained in the horned uterus of a cow will not satisfy the physiologist that the like event may happen in woman. Without comparing the normal horn-gestation of the ruminant to the abnormal Fallopian gestation of woman, there is enough to suggest the idea that both are forms of tubal gestation.

The PRESIDENT said that the paper strongly impressed him with the necessity of greater carefulness than he and other authors had used, in applying the word lithopædion. The observations made, especially in the Hunterian Museum, confirmed the remarks he made when Dr. Barnes's original paper was read, that there was never a stone-child really, but only petrification of the membranes and adjacent fœtal parts. The condition of the deeper parts was a valuable part of the observations now given to the Society.

JULY 6TH, 1881.

J. MATTHEWS DUNCAN, M.D., F.R.S. Ed., President, in the Chair.

Present—32 Fellows and 3 visitors.

Books were presented by Dr. Henry W. Ackland, Dr. Thomas Addis Emmet, and the Smithsonian Institution.

Dr. Joseph Johnston and Mr. Julian Willis were admitted Fellows of the Society.

James Alex. Close, M.B. (St. Clair co., Illinois), and James Gideon Creasy, M.R.C.S. (Brasted, Kent), were elected Fellows of the Society.

Herbert George Cronk, M.B. Cantab., John Mill Frodsham, M.D. Ed., and Charles S. de Lacy Lacy, M.A., M.B. Oxon., were proposed for election.

DR. FANCOURT BARNES showed an instrument designed by Dr. C. Duncan, of Rome, to measure the amount of flexion existing in anteflexions or retroflexions of the uterus.

ANENCEPHALOID FŒTUS.

Dr. Pope showed an anencephaloid fœtus. The case was interesting as the monster was one of twins, and the labour itself presented some features worthy of note. The mother was in the eighth month of pregnancy, and had slight pains in the abdomen all day. On examination, a process of the membranes like the finger of a glove, and containing *liquor amnii only*, was found projecting from the vulva. This was ruptured, and a second bag of membranes could then be felt projecting from the os uteri. When this was ruptured an arm and piece of funis came down. A foot was seized, and the anencephalous child was soon delivered alive. A foot of the second child was then reached and the child removed as far as the neck, when the os uteri closed firmly on the head. By inserting a finger within the mouth of the child the chin was depressed, forming the apex of a wedge, which soon dilated the os and allowed the delivery to be effected. The placenta was single and the monster lived eighteen hours. It is to be noted that the monster was born first.

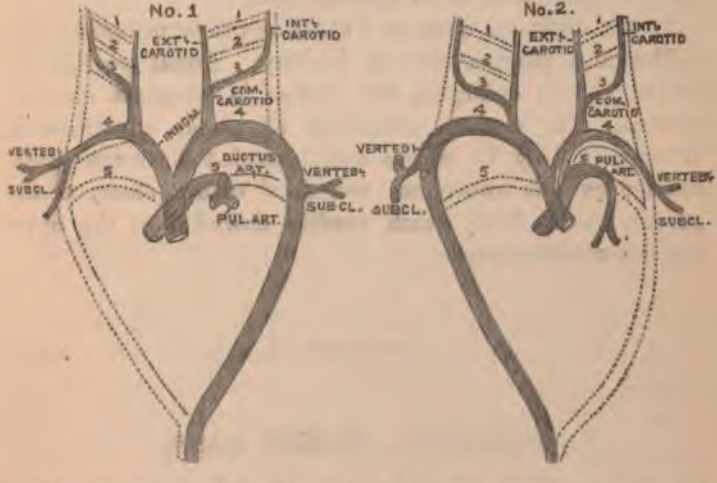
Dr. Godson showed for Dr. Cronk the following specimens:

1. A malformed heart with aorta arching over the right bronchus, and pulmonary artery closed at or about the semilunar valves. The specimen was taken from a male child at full term, who died, fifteen days after birth, from an acute attack of chronic hydrocephalus.

The patient was noticed to be very cyanosed at birth, and for a day or so afterwards; the lividity then disappeared and did not return to any marked degree.

The heart.—Right auricle dilated, foramen ovale

patent but closing. Left auricle admitted the pulmonary veins, but was smaller than natural. Ventricles of nearly equal size and thickness. The upper part of the inter-ventricular septum was absent, the ventricles thus opening into each other and into a common vessel—the aorta—which was closed by three semilunar valves, quite healthy, and behind the two anterior were the orifices of the coronary arteries. The remains of the pulmonary artery consisted in a prolongation upwards from the right ventricle, and a tube which opened above into the aorta but was separated from the infundibulum below by a



membranous septum, above which were three depressions marking what should be the situation of the pulmonary semilunar valves; but no trace of these was present, unless the septum were formed by their adhering together. The aorta ascended for three quarters of an inch, and then bifurcated, the larger branch arching over the right bronchus, passed downwards and backwards to gain the right side of the vertebral column, and then crossing over the bodies of the vertebræ, pierced the diaphragm at its usual situation. It gave off the following branches:—Right common carotid and right subclavian, and then

the aortic intercostals. The smaller branch of bifurcation arched over the left bronchus, giving off the left common carotid and left subclavian, and then continuing onwards bifurcated on the trachea, each division subdividing into numerous branches which entered the root of each lung supplying it. There was no transposition of any of the viscera.

The diagrams illustrate the mode of development of the alteration in the great vessels. No. 1 shows the normal development of the aorta and great vessels. No. 2 shows the change that occurred in this case, and the probable mode of its development.

2. AN UMBILICAL CORD IN A STATE OF CYSTIC DEGENERATION. —Placental portion of cord healthy. Fœtal portion for twelve inches enlarged, five inches in greatest circumference. On section presented its usual constituents. Wharton's jelly in excess and occupied by large cysts, crossed by soft trabeculæ, and filled with a clear, transparent, viscid fluid, which readily flowed out; the cysts did not communicate.

SURGICAL POCKET CASE.

DR. GODSON showed, for Mr. Arnold Thompson, of Ampthill, a surgical pocket case designed by him for the purpose of enabling surgeons and general practitioners to have a portable and compact set of really useful and necessary instruments to be carried during the daily round of visiting, as well as when sent for hastily to an unknown case. It contains over two dozen full-sized and efficient instruments, viz.:—Clinical thermometer, caustic case, Corrigan's actual cautery button, director, Bellocq's epistaxis cannula, finger saw, exploring needle with saw fittings, Toynbee's ear speculum (constructed to act as a tracheo-

tomy tube when desired), bull-dog forceps, straight bistoury, gum lancet, Ferguson's knife and aneurism needle (mounted together), dressing forceps, medium-sized silver-plated catheter (adjustable for male or female), silver probe, Chesterman's patent measuring tape, hypodermic syringe (with gold needles for injection and aspiration), folding steel scissors, and Imray's double ear scoop, besides compartments for lamels, discs, vaccine points, wire, thread, and surgical needles, lint, plaster, and oil-silk, &c. The case measures about five inches and a half long, three wide, and one deep, and is shaped like an ordinary cigar case. It could not fail also to be very useful and handy to militia or volunteer surgeons when on duty. Messrs. Arnold and Sons, of Smithfield, are the makers.

REPORT ON DR. CLEVELAND'S SPECIMEN.

THE specimen is 2½ in. long, 1 in. wide, and ⅝ in. thick. The outer surface is somewhat rough, one end is rounded and closed, the other terminates by an opening having two smooth lips, and resembling an os uteri. There is a central flattened canal about ¾ in. wide, having a comparatively smooth surface. The thickness of the walls is pretty uniformly about ¼ in., but along the sides it is somewhat less. Microscopic sections show the tissue to correspond to the uterine decidua of pregnancy. It shows very large cells, especially near the surface, and contains wide vascular spaces, some of them occupied by clot. The lips of the aperture consist of the same tissue, and show no cervical structures. From the outer edge of one lip there is a thin reflected margin, about ¼ in. wide, not more than $\frac{1}{20}$ in. thick, smooth on its originally free surface, the other evidently rough from detachment. A vertical microscopic section taken through the lip and the

reflected margin shows the latter to be continuous with the deeper layer of the decidua, and to consist of similar tissue, except that it is somewhat more fibrous. No intact epithelium is seen in any part of the specimen.

We are of opinion that the uterus is double, and that the specimen is the entire decidua from the unimpregnated side. We think it probable that the body only is double, the cervix single, that the smooth lips indicate the point at which the unimpregnated half opened into the other, and that the thin reflected margin comes from the surface of the impregnated side.

ALFRED L. GALABIN.
JOHN WILLIAMS.
W. F. CLEVELAND.

NON-CAPSULATED FIBROIDS, RESEMBLING RETAINED PLACENTA.

By JAMES BEAITHWAITE, M.D.,
LECTURER ON DISEASES OF WOMEN AND CHILDREN AT THE LEEDS SCHOOL OF MEDICINE.

THE following cases show that non-capsulated fibroids of the interior of the uterus may so closely resemble placenta in the feeling communicated to the finger as to actually lead to the supposition that some placental mass or a portion of an ovum is retained in the uterus. This fact seems to me not a mere matter of curiosity only but of practical interest.

Mrs. L—, on the tenth day after delivery, commenced unexpectedly to lose blood. Dr. Green, of Leeds, her medical attendant, found on examination what he took to be a mass of placenta within the uterus, although at the time of delivery the placenta had come away entire. He succeeded in separating a considerable portion of this mass from the anterior wall. I saw the case with him at

this point, and also at first took the mass to be placenta. It was jagged and even fringed on the free surface, and, judging from this surface alone, hardly a doubt would have crossed the mind but that it was true placental tissue. In this, however, alone consisted the resemblance, for the growth was of much firmer consistence than placenta, and was in its deeper parts an integral portion of the uterine wall, from which it could only be detached by a considerable degree of force. I therefore, as had Dr. Green, thought the growth might be malignant, and, but for its tough fibrous nature, rendering it impossible to tear or break it down except in the direction of the long axis of the uterus, should have had no doubt on this point. I continued the separation of the growth with some difficulty nearly to the fundus, but finding that it could not be shelled out, owing to the absence of any boundary between it and the uterine structure proper, and that I was getting deeper into the wall of the organ, I was obliged to desist, and then by means of long curved scissors removed the whole of the separated mass—not, however, in one piece, but in detached portions. I heard from Dr. Green that the patient made an uninterrupted recovery, probably thanks to the care taken to prevent septicæmia. Dr. Barrs, of the Leeds Infirmary, kindly made for me a section of the growth for the microscope, and I forwarded this to Dr. Galabin, who reported upon it as follows:

"The tissue seems to me to resemble what I have sometimes seen in soft, rapidly-growing, non-encapsuled fibroids—large muscular fibres, very large vascular spaces, tissue highly nucleated in parts, and round the vessels something approximating to the character of sarcoma. Some of the vessels show the proliferation of the inner coat filling up the lumen which occurs in the uterine tissues of placental site after delivery. I should say there is no evidence of cancer, but that there may be a possibility of recurrence."

Case 2.—Mrs. H—, of Gildersome, near Leeds, had a

miscarriage at three months; the ovum came away with great rapidity and entire. Four days afterwards Dr. Steele, of Morley, examined her in consequence of hæmorrhage, and he found what he took to be a second ovum. I saw her with him the same evening, and found that the uterus contained a ragged, fringed mass, exactly resembling an ovum. I could not separate this from the uterine wall with the blunt scoop, which I generally use for this purpose instead of an ovum forceps, but succeeded in removing a small portion for examination. Next day I cleared out the whole, the cervix being fairly dilated by tents left in overnight. The mass did not separate like an ovum would have done, but required to be seized—a portion at a time—by interlocking ring forceps of some strength and crushed.

On microscopic examination it was found to consist of very loose fibroid tissue. Nothing at all resembling cellular growth could be detected. On adding a drop of strong acetic acid the fibroid tissue swelled and became almost invisible, but immense numbers of fungoid growths were then seen, not being affected by the acid. They were distinctly circular, not in chains like micrococci, and had evidently grown on stalks like ordinary fungus, for three of them were seen so growing from the same spot on a fibre not quite destroyed by the acid, the stalks diverging from the common point of attachment. They varied a little in size, but were about one twentieth of that of a blood corpuscle. No doubt they had been originally introduced from without, probably directly from the vagina, but their vast number, and the manner in which the whole mass was penetrated with them, shows the rapidity of their growth. This, however, is a point more of curiosity than practical moment, that to which I wish to draw attention being the almost exact physical resemblance which the growth as a whole bore to a retained ovum, and it is also worth noting that in both these cases the growth had its origin in the placental site, but nevertheless contained no placental tissue.

Dr. Edis remarked that the case was one of great interest, and worthy of remembrance in more ways than one. A practitioner might readily incur unjust blame for leaving a portion of placenta in some case where secondary hæmorrhage occurred. He (Dr. Edis) had recently been consulted in a somewhat similar case where a patient miscarried at the fourth month, severe hæmorrhage ensuing subsequently, and continuing for several days. On examination a dense rough mass was found projecting from the posterior wall of the uterus, about the size of a hen's egg. On endeavouring to detach it the growth was found to be firmly encapsuled in the tissue of the uterus, being, in fact, a submucous fibroid, and not the placenta as was at first suspected. In a case similar to Dr. Braithwaite's, the exhibition of ergot would fail in arresting hæmorrhage. The knowledge that such a condition was even occasionally met with might prove a valuable suggestion as to the line of treatment to be adopted.

Dr. Herman mentioned a case which had been under his care in the London Hospital, in which there was a large abdominal tumour, shown by autopsy to be malignant. The uterus was enlarged, its cervix dilated, and in its cavity there was a growth of loose stringy texture. In this case the patient had, when she first felt the tumour, thought herself pregnant, and a medical man engaged to attend her, and sent for on account of hæmorrhage, feeling through the patulous cervix the loose thready tissue referred to, took the case for one of placenta prævia. Several obstetricians of eminence subsequently saw the patient; and so closely did the mass presenting at the os resemble to the touch placenta, that the view above mentioned was admitted as a possibility by each one of them.

Dr. Roper had had under his care the patient whose case had been mentioned by Dr. Herman. Aged twenty-eight, she had been married six years, believed herself to be pregnant for the first time, and had engaged a medical man of great experience to attend her in her expected confinement. Her history in all respects was like that of pregnancy, and her general health was good. At the seventh month she was seized with a severe flooding, then a slight oozing for a few days, succeeded by another flooding. The case was supposed to be one of placenta prævia; her medical attendant sent for Dr. Roper in the middle of the night. The abdomen, both in shape and size, was like that of pregnancy at seven months. The os uteri admitted two fingers, and through it he could feel a mass like placenta. It was too rigid to allow of the passage of more than two fingers. The fœtal heart could not be heard, but there was a loud bruit in each iliac region, and along the linea alba, and towards the umbilicus it assumed a musical tone. Labour did not come on. From time to time she had slight floodings, but remained in good health. Fourteen months after the date of supposed preg-

nancy she was taken into the Royal Hospital, Waterloo Road, where she was seen by Dr. Barnes and Dr. John Williams. A portion of the mass was removed with polypus forceps, but on microscopic examination no placental structure could be observed. At this time the os uteri was of the same size as at first, and the mass could be felt. She subsequently came under Dr. Herman's care at the London Hospital, where she died rather suddenly of septicæmia. On post-mortem examination the case was found to be one of soft medullary cancer. This seemed to have commenced outside the uterus, to have invaded the uterine wall, and a portion projected into the uterine cavity. The uterus itself was about five or six inches in length, and its walls at the part not affected by the disease were much thickened.

Dr. Heywood Smith did not consider that the intra-uterine growths described quite answered to the ordinary characteristics of fibroids—the irregularity and tendency to break down of their surface was not like that of fibrous tumours; and, having regard to Dr. Galabin's observation that they were liable to recur, he ventured to remark that he believed these growths presented a feature more resembling some morbid tissue, than as a malignant growth, for true fibroids, though fresh ones might be developed, did not recur. He would like to know on what grounds they were supposed to be fibroids at all.

Dr. Fancourt Barnes had distinctly heard the sound called placental souffle in Dr. Roper's case. He should like to hear some explanation of these sounds.

A CASE OF PREGNANCY COMPLICATED BY CANCER OF THE CERVIX UTERI, FOLLOWED BY PYÆMIA ASSOCIATED WITH SYMPTOMS SIMULATING DIPHTHERIA.

By Alfred L. Galabin, M.D., F.R.C.P.

In November, 1878, I was called to see Susan C—, æt. 34, in consultation with Dr. R. A. Wallace. She was married at the age of twenty-five, and was the mother of five children, the last of which was [illegible] on March 19th,

1877. After this menstruation was regular up to March 12th, 1878. After this she saw nothing up to the 16th of May. Ever since that time there had been irregular metrorrhagia, with the exception of one month's clear interval from the middle of July to the middle of August. On October 3rd she lost a considerable quantity of blood while riding in a tram car.

The patient was evidently pregnant, but on examination of the size of the uterus, and the date of quickening, appeared to indicate that the pregnancy dated, not from the cessation of menses on March 12th, but from about the middle of May, the time at which metrorrhagia commenced, and was of rather less than six months' duration. The whole circuit of the os uteri appeared to be involved in cancer, and was fixed. On the left side was a cleft reaching the vaginal reflection, and apparently passing to the outside limit of the cancerous growth in that situation. It gave the impression that it had existed anteriorly to the development of the cancer. The growth was hard, and bled slightly on touching, but not to any extent. I was so impressed by its firmness that, although in two former cases in which the whole circuit of the os appeared to be involved in cancer, I had successfully delivered through the natural passages, I was disposed in this instance to entertain the idea of Cæsarian section. Considering that it was a case in which some regard might reasonably be paid to the life of the child, I recommended that we should wait till the child was viable, should then induce labour, and, if no spontaneous dilatation of the cervix occurred, should perform Cæsarian section.

The husband and friends, however, were very anxious that the child's life should *not* be saved, one of the former children being an idiot. They and the patient, therefore, refused to permit Cæsarian section.

A little later the patient went to consult Dr. Protheroe Smith. His opinion was that delivery should be effected by the natural passages, but he considered that the patient would run a very great risk. Eventually it was arranged

that the patient should come into Guy's Hospital, a promise being given that Cæsarian section should not be performed if delivery could be effected otherwise. She was admitted on December 17th, being then about seven months pregnant.

On examination after her admission, the os uteri was found to be of a horse-shoe shape, owing to the projection into it of a mass growing anteriorly, and causing eversion of the anterior lip of the cervix. The discharge had been offensive for the last fortnight only.

Dr. Braxton Hicks examined the patient in consultation with me. He advised that labour should be induced, and that Barnes' bags should be used to dilate the cervix.

On December 30th, the induction of labour was commenced, an elastic bougie being passed into the uterus without rupturing the membranes. Pains came on in a few hours, but little or no effect was produced upon the os. A vaginal injection of carbolic solution was used every four hours.

On the 31st, at 9 p.m., chloroform was administered, and the smallest Barnes' bag was introduced into the cervix. The membranes had previously ruptured. At 12 p.m. pains were occurring about every four minutes. The temperature had risen to 101·4°, and pulse to 100. Chloroform was again administered, and the Barnes' bag removed. Sufficient dilatation was found to have occurred to allow the introduction of the largest bag. At 9 a.m. on January 1st, the temperature had fallen to 99·2, and the pulse below 100. On the removal of the Barnes' bag, but little further dilatation was found to have taken place, and what dilatation had occurred seemed to have been due chiefly to stretching of the base of the laceration already mentioned, which extended beyond the limits of the cancerous tissue on the left side. The os was still of a horse-shoe shape, and measured a little more than two inches laterally, antero-posteriorly the margins were almost in contact, owing to the projection of the mass

growing from the anterior lip. I now decided to leave the case to nature for a time, in order to see whether any further dilatation of the os would take place spontaneously. By 2 p.m., however, no advance had been made, although pains continued pretty vigorously. The pulse was about 100, temp. 101·6°.

Chloroform was then administered, and I first endeavoured to turn. This proved to be impossible, the os being too small to admit the hand, and the rigid contraction of the uterus being too great to allow of bipolar version. I succeeded, however, in applying long forceps, and made moderate traction, but the os did not yield in the slightest degree. The head was then perforated and crushed by the cephalotribe, but the flattened mass did not readily enter the cervix, although rotated so as to bring its largest diameter into a transverse position, in accordance with the largest diameter of the cervix. The cephalotribe was therefore taken off, and Barnes' craniotomy forceps applied. By steady traction, the head became gradually elongated into a conical shape, and was delivered without the use of any great force. The body gave no trouble, and the placenta was expelled naturally. The whole of these proceedings, including the administration of the anæsthetic, were completed within an hour. At 5 p.m. pulse was 114, temp. 102·2°, but by 9.30 p.m. pulse had fallen to 98, and temperature to 99°. Vaginal injections of carbolic solution were used every two hours.

At 5 p.m. on the following day, January 2nd, temperature had risen to 103·8°, pulse to 120, and a slight smell was noticed in the discharge. Quinine was given in five-grain doses every four hours. On the 3rd the pulse had fallen to 100, and temperature to 97°, and the patient appeared to be doing fairly well. From the 3rd to the 10th, temperature and pulse were very variable, the temperature ranging from 98·4° up to 103·8°, reached on one evening. On the 6th inflammation of the tonsils and fauces was noticed, and a gargle of chlorate of potash was ordered for it. On the 7th she complained of pain in the

left side of the chest, but nothing was detected on auscultation.

On the morning of the 10th she had rigors, in which the pulse rose to 140, and the temperature to 103·4°. The inflammation of the throat was found to be increased, and a pleuritic rub was detected on the left side. Perchloride of iron with chlorate of potash was ordered every three hours.

On the 11th she appeared to be better, and the pulse had fallen to 86, temperature to 98·4°. A deposit of membrane, however, was now noticed on the tonsils, and, still more, on the posterior wall of the pharynx. The urine, which up to this time had been normal, was now found to contain a small quantity of albumen, and this was confirmed from a specimen withdrawn by catheter. I therefore asked my colleague, Dr. Frederick Taylor, to see the patient, with reference to the diagnosis of the affection of the throat. He reported that, from the fact of the membrane affecting chiefly the pharynx, and not simply the tonsils, and from the coincidence of albuminuria, he considered that the affection of the throat was almost certainly diphtheria, and recommended the removal of the patient to a separate ward. This was accordingly carried out. In the evening there was evidence of extension of the pleurisy, and there were moist râles all over the back of the chest. The amount of membrane on the throat increased for some days, and then diminished gradually. On the 14th the pain in the throat was much relieved, and the albumen in the urine was reduced to a slight trace. On the 16th it had disappeared. The patient, however, had a rigor again on this day, continued to get worse, and died on the 18th, seventeen days after delivery. Quinine in ten-grain doses had been given from the 13th.

The following account of the autopsy is taken from the report of my colleague, Dr. Goodhart, who made the examination:

"*Lungs.*—The lower lobe of the right lung was

œdematous, and in its substance were four or five small abscesses, which were in all cases connected with plugs in the terminal pulmonary arteries. In the left lung there was a large ragged cavity at the base, due to a sloughing pneumonia, and in addition there were three or four surface infarcts in the lower lobe.

"*Uterus.*—The os and cervix were occupied by a yellowish ulcer. The edge of the os was everted and a little thickened. The floor, when sectioned, was seen to be composed of a yellowish infiltrating growth. In the middle of the anterior lip was an amygdaloid process running from the os internum to externum, somewhat discolored and looking more like swollen mucous membrane than any new growth. On section, it was found to be a hypertrophied muscular coat, looking like a fibromyoma covered over with the mucous membrane of the cervix, and in its centre was a small collection of pus, apparently in a dilated vein. External to the cervix on the right side there was a plexus of dilated veins, which were full of pus, and from them this extended into the vena cava. At the latter part there was a cylinder of firm organised clot lining the vein wall, and a central greenish soft material, like bad pus. In the right ovary was a hard yellowish mass, which no one would have suspected to be a true corpus luteum, but there was nothing else on either side to answer to it.

"The uterus was large, soft, and fatty looking. The internal surface ecchymosed and covered with a little grumous-looking stuff. No pus in any of the sinuses of the body, nor in the plexus of veins by its side, nor in the broad ligament. The placental site was marked by a shilling-sized, button-shaped excrescence, with a corrugated surface, on the anterior surface of the fundus near the orifice of the right Fallopian tube.

"*Throat, pharynx, &c.*—From the tonsils, backward over the posterior wall of the pharynx, there was a thin adherent layer of membrane. The tonsils themselves were not so much involved, although said to be so during

life. The membrane was only slightly adherent and peeled off without leaving any roughness of surface or ecchymosis behind, so that I am inclined to think that it is merely a 'thrush,' due to the dying state the patient had lain in for some days. Under the microscope, the membrane consisted of mycelium fungus, and the mycelium spores were in large quantity. No catarrhal products whatever. This, I think, confirms its non-diphtheritic nature.

"*Kidneys.*—Weighed 10 oz. Very pale. The capsule strips off very badly. A little stellate congestion. They are not good organs, but there is none of the acute congestion one would have expected in diphtheritic albuminuria. Therefore, I think these organs rather militated against the view of diphtheria."

Although the question of the treatment of pregnancy complicated by cancer of the cervix has already been discussed by the Society, I thought that this case might be of interest, more especially as regards the relation to septicæmia or pyæmia of the pseudo-diphtheritic or diphtheritic affection of the throat. I am not quite able to agree with Dr. Goodhart that it was simply a "thrush" due to the dying state of the patient. For, first, no other part of the mouth was affected; secondly, the affection of the throat was a very painful one, and was one of the earliest unfavorable symptoms noticed, commencing five days after delivery, and twelve days before death; thirdly, the membrane was first noticed when the pulse was only 86 and temperature 98·4°; and, fourthly, the albuminuria commenced with the appearance of membrane, and disappeared as the membrane diminished.

Three possible views might apparently be taken:—(1) That the membrane was simply a thrush, as held by Dr. Goodhart; (2) that there was true diphtheria complicating pyæmia; (3) the view that I was inclined myself to adopt, both during the patient's life and after her death, that the membrane was of a pseudo-diphtheritic character, the result of the septicæmia or pyæmia, and was thus

comparable with the apparently diphtheritic deposits in vagina and throat, which have been observed in some forms of virulent puerperal septicæmia, especially when epidemic in lying-in institutions. Since both septicæmia and diphtheria are attributed to micrococci in the present day, it would seem quite possible that the membrane may have been due to micrococci in the first instance, and that the coarser mycelium fungus simply found in it a suitable nidus for growth. The question may also arise whether there may be an affection approximating to diphtheria without actually constituting that disease, or whether the organisms of diphtheria may be developed out of those which have initially a different nature.

It would hardly seem in accordance with modern views to hold that the mycelium fungus infected the general system, and led to the albuminuria and other symptoms, especially as there was an obvious local cause for the pyæmia.

Microscopic sections are now shown—(1) of the mucous membrane of the pharynx, with the membranous exudation *in situ* ; (2) of the kidney ; (3) of the cancerous growth in the cervix.

The membrane on the pharynx is shown to consist of detached epithelial cells, mingled with a considerable number of leucocytes and granular matter, and the mycelium and spores of fungus. A considerable portion of the thickness of the squamous epithelium is thrown off, and, at several points, scarcely any remains, while there is an effusion of leucocytes in the cellular tissue beneath. Both the destruction of epithelium, however, and the effusion of leucocytes are less than is usually seen in true diphtheria. The mycelium penetrates the epithelium *in situ* as far as its deeper surface.

The kidney appears to me to show more of an acute change than Dr. Goodhart inferred to exist from its naked-eye appearance. I am unable to detect any chronic cirrhotic change. The epithelium, however, is proliferating, filling up the tubes irregularly, so that the lumen is gene-

rally contracted and stellate instead of round. Some of the tubes appear to be more or less filled with small nuclear cells instead of with the usual epithelium.

The growth in the cervix shows characters intermediate between epithelioma and carcinoma, but approximating most nearly to the latter. It would correspond, therefore, with what I believe to be the general course of cancer of the cervix, namely, a commencement in the form of epithelioma, which more or less rapidly merges into carcinoma. The cells are in parts arranged in alveoli. They are, however, cemented together like the cells of squamous epithelium, and in some parts there are extensive cell-masses, in the midst of the stroma, without any outlying clusters. At other parts, on the border of the growth, groups of less than a dozen cemented epithelial cells are seen in the midst of the apparently normal tissue. No border of "palisade cells" to the cell-masses is anywhere seen, nor any epithelial globes. The cell-masses have all a yellowish tint.

The amount of cancerous tissue found at the post-mortem examination was less than had existed at the time of delivery, the projecting mass from the anterior tip of the cervix having sloughed away.

No unsanitary condition was known to exist in the ward at the time when this patient was in it, nor was any other patient unfavorably affected.

Dr. HERMAN expressed his opinion that the therapeutic means in these cases which offered the greatest hope of benefit to the mother were (1) the induction of abortion at the earliest possible period, and (2) the removal of as much of the diseased tissue as could be safely cut or burnt away.

Dr. ROPER remarked that when a patient in the seventh or eighth month of pregnancy with cancer of the cervix first comes under notice at this period, only one of two modes of delivery could be selected—(1) Delivery *per vias naturales* after induction of premature labour; (2) Cæsarean section. But he wished to put these questions: If a patient with malignant disease of the cervix came under notice when only three months advanced in pregnancy, should pregnancy be allowed to go on till the child

became viable? Or should abortion be produced at once? He had, at the present time, a patient under his care, three months advanced in pregnancy, with malignant disease of the entire substance of the cervix. Looking to the prospect of the case in four or five months hence, he believed that the production of abortion was the proper treatment.

Dr. Godson mentioned a case which occurred at the City of London Lying-in Hospital during a severe endemic of puerperal fever, in which the symptoms were almost identical with those of Dr. Galabin's patient. She was almost the only woman who recovered, which tended strongly to prove that the disease was septic, and not the thrush of a moribund woman spoken of by Dr. Goodhart.

Dr. Edis thought the question of whether the whole circumference of the cervix was involved in the malignant degeneration a very important one. In those cases where even a quarter of it remained healthy, dilatation could be effected either naturally or artificially, so as to allow the transit of the fœtus; but if the whole circumference were involved, even though it was not to a considerable extent, dilatation would not take place. He had brought before the Society a case some years since, where delivery was accomplished by the aid of the forceps, the child being born alive and still living. In this case about two thirds only of the cervix was involved, the healthy portion alone dilating. The mother went on well for the first week, but ultimately succumbed with well-marked symptoms of pyæmia, owing doubtless to the bruising of the tissues during delivery. Where the whole circumference of the cervix was involved the better plan would probably be to perform Cæsarian section, supposing that the condition had not been detected until labour had set in at the normal period.

NOTES ON THE DISSECTION OF A MALFORMED CHILD.

By W. Lenton Heath, M.B. Lond., F.R.C.S.

The child to which these notes refer, and of which I show you the dissection to-night, was exhibited at the November meeting of this Society when it was about a fortnight old. At that time it was slightly hydrocephalic, and, in addition, showed great changes in the development

of both its arms, simulating in appearance some of the cases described as being due to intra-uterine amputations, whilst the lower limbs also showed great changes from the natural condition, for there appeared to be an almost complete absence of both femora, and the feet—which were in a position, one of extreme talipes equino-varus; the other, in that of extreme valgus—only had four digits in each.

The *subsequent history* of the child was briefly the following. Slowly but progressively from its birth the head became larger, until at the time of its death it measured twenty-two inches in circumference, the sagittal suture was seven eighths of an inch broad, and the coronal half an inch. All the fontanelles were greatly enlarged, the oblique measurement of the anterior being nearly an inch and three quarters.

For the first two or three weeks the child took milk well from a bottle and kept up its nutrition, causing no little alarm to its grandmother, who feared it might live; but about this time it began to fail, refused its food, and lost flesh, slowly at first, but then more rapidly until its death, which resulted from inanition at the end of six weeks.

During the last fortnight it had frequent convulsive attacks, lasting only a few seconds, in which the child became rigid and its face of a livid colour. These attacks, which occurred at one time as often as six or eight times in a day, ceased altogether for the last forty-eight hours of its life.

Dissection.—At the time of death the head presented the ordinary appearances of hydrocephalus, but it very soon became flaccid, so that when it was opened the greater part of the brain had become diffluent, being, I suppose, rendered softer and liable to more rapid decomposition by absorbing water from the fluid by which it was distended. All that could be seen was a thin layer of breaking down brain substance covered with its membranes and distended with fluid.

The tissues of the scalp did not appear altered, but the membrane connecting the bones was thin and translucent. The bones themselves seemed more flexible and thinner than natural. In parts the osseous matter was entirely absent in each of the frontal bones, and these apertures, which looked like windows, were closed by a thin transparent membrane. The largest of these apertures was in the left frontal bone, at its lower and outer angle, which was three quarters of an inch long and a third of an inch across. Two or three of these occurred in each frontal, but none in the parietal bones.

The main vessels and nerves of the head and neck were normal, as also were the muscles.

The contents of the thorax.—Heart with its great vessels, lungs, and thymus gland were normal.

Also the *viscera of the abdomen* were natural, both as to position and shape, with the exception of the spleen, the lower end of which was continued forward like a tail, so that the whole organ looked very much like a leech curled up.

The main vessels and their branches had the usual origins and distribution.

The hypogastric arteries were obliterated beyond the top of the bladder; the portions between this point and the internal iliacs were very large and thick, but the lumen small in comparison with the thickness of the vessel. The external circumflex arteries of the profunda (femoris) were given off from the external iliacs just above Poupart's ligament.

The muscles between the trunk and scapula, clavicle and humerus, were quite natural, as were also the bones constituting the shoulder-girdle.

Upper extremities.—The right upper extremity was an inch and a half long, the whole of which length was taken up by the humerus, which was perfectly shaped at its upper part, but at its lower end, towards which it tapered slightly, there was a small osseous nodule on its inner side. This, apparently, was not an inner condyle, as the

humerus had not come to its natural ending, and there was no corresponding tubercle on its outer side.

This end of the bone was covered with a small pad composed of fat and connective tissue, in which the brachial artery and median and ulnar nerves terminated. The whole was covered with skin, which presented a projection, but which, by no stretch of imagination, could be likened to a rudimentary forearm or other normal part. The pectoralis major and deltoid muscles had normal origins and insertions, but at their contiguous margins were intimately united as one muscle.

The coraco-brachialis (which had the usual origin) was joined below by a narrow continuous strip of muscle, constituting the short head of the biceps and brachialis anticus, which was attached to the front surface of the humerus and the anterior surface of the tubercle on the inner side of the lower end. There was no long head of the biceps. The triceps was represented by a thin layer of muscle attached to the posterior aspect of the shaft, and which was joined above with the deltoid, and lower down by the teres major and latissimus dorsi muscles. The regular vessels and nerves of this limb, as far as could be made out, were all representative, and, allowing for the general alterations of the muscles, were naturally distributed.

The *left* upper extremity was two and a half inches in length and presented at its lower end a palm-like pad of skin, in which vessels and nerves ended by dividing into small branches and plexuses, but here also no trace of a hand could be made out. The humerus in this arm was what might be considered of natural length, but prolonged from its lower and outer end; where its external condyle should have been was a shaft-like projection of bone, about half an inch long, continued in the direction of the radius. There was no joint between this and the humerus, of which it was a direct continuation. It was on this projection that the pad of skin above mentioned was placed. The anterior surface of this projection gave insertion to a well-developed biceps and the posterior to the triceps, so

that it can hardly be looked upon as either a homologue of the radius or ulna alone.

At the inner side of the lower end of the humerus was a bony projection which may possibly be regarded as an internal condyle; and just behind this, separated from it by a slight furrow, was another similar projection. After having examined carefully this lower end of the bone I was led to regard these projections not as condyles, but as something altogether anomalous in the development of this part. The muscular attachment to the upper and anterior parts of the shaft of the bone were natural, but there was an absence below of the origins of the supinator radii longus and extensor carpi radialis longior muscles and all those that should be attached to the inner and outer condyles.

The biceps and triceps muscles were natural as to size and origins, and it was only at their lower extremities, where they were attached to the projecting shaft of bone, that any abnormality was found. The brachial artery gave off its usual branches in the upper arm, and there were present the median, ulnar, musculo-cutaneous, musculo-spinal, and the cutaneous nerves, all of which had the usual relations in this part of the arm.

Lower extremities.—The pelvis was of the natural shape, but the acetabula were absent on both sides, and where they should have been—that is, at the junction of the separate iliac, ischial, and pubic bones—there was a heaping up instead of a socket. The bones were all separated here and moved freely on one another, a synovial membrane lining their contiguous surfaces. On part of the promontory produced by the junction of these bones, namely, on that part formed by the ischium, there was a smooth, somewhat convex surface, about the size of a pea, and this part articulated with the upper end of the stump of femur. On the dorsum of the ilium, just below the anterior inferior spine, was a smooth surface as big as a split pea, and encrusted with cartilage, and with which the great trochanter, which was completely detached from the femur,

The right tibia was also curved forwards and inwards, and the shaft of the fibula, as in the opposite limb, was only a cartilaginous cord, but its lower end, constituting the outer malleolus, was ossified.

The muscles of this leg were also regular with the exception of there being only one peroneus, which on this side, although combining both longus and brevis at its origin, was inserted as peroneus brevis.

The foot was in a state of equino-varus, and also had only four toes, the little toe on this side being absent. The vessels and nerves of this leg were found in their natural places.

Remarks.—From the general characters which this child presented I think we can only look upon it, not as one showing arrested but altogether abnormal development, for, whichever of its deformities we may take, we cannot explain it by imagining that development has gone on rightly to a certain point and then has become suddenly, but simply, arrested, but rather that natural processes have become greatly perverted.

Dr. ROPER considered the dissection of this fœtus as of great interest and importance in reference to the question of so-called intra-uterine amputation. This he believed to be an exceedingly rare phenomenon, most of such alleged cases being the result of arrest of development and not of amputation. External examination could in many cases determine them to be cases of arrest of development. In some cases, however, the question could not be decided without dissection.

Dr. BARNES reminded Dr. Roper that there was a case, apparently well authenticated, of a child exhibiting a healed stump and the amputated foot being found together *in utero*.

Mr. POWDRELL wished to say he had listened with much pleasure and interest to the valuable paper just read. Some two or three months back he delivered a patient of a female child at full term with a deformity of this nature; development had ceased at the lower end of the right humerus, where the arm terminated in two small fleshy nodules, an apparent effort to form fingers; the forearm and hand were entirely absent. There was (if he might use the term) a sort of "compensatory development" in the left hand, where two thumbs joined together throughout were to be seen. In every other respect the child

was a fine and healthy one, showing no signs whatever of abnormal brain development. He hoped to get the sanction of the parents to bring the child before the Society, and should he do so he would bring her at a future meeting.

Dr. HERMAN asked whether during life, or upon dissection, the condition of the hip-joints in this case in any way resembled that which occasioned the so-called "congenital dislocation" of the hip?

In reply, Dr. HEATH said that during life the case did present some of the characters of congenital dislocation of the hip-joint, but from the extent of the deformity and the maldevelopment of other bones it was thought that something more than simple congenital dislocation existed, and this conclusion was borne out by the condition of the parts described in the dissection, to which Dr. Herman was referred.

OCTOBER 5th, 1881.

J. Matthews Duncan, M.D., F.R.S. Ed., President, in the Chair.

Present—30 Fellows and 6 visitors.

Books were presented by Mr. H. W. Cole, Dr. A. Courty, Mr. De Cristoforis, Dr. Edis, Dr. Festner, Drs. Hegar and Kaltenbach, Dr. Macari, Dr. R. J. Nunn, Dr. Playfair, Dr. Wasseige, University College and Hospital, and the American Gynæcological Society.

George Town Penny, M.R.C.S., was admitted a Fellow of the Society, and George Worthington, M.R.C.S. (Sidcup), was declared admitted.

Herbert George Cronk, M.B. Cantab., John Mill Frodsham, M.D. Ed., and Charles Sethward de Lacy Lacy, M.B. Oxon., were elected Fellows.

The following gentlemen were proposed for election:
William Alex. Hepburn, F.F.P.S.G. (Coxhoe), Arthur Perigal, M.D. (New Barnet), Archibald Sloan, M.B. (Glasgow), and Francis Perley Taylor, F.R.C.S. Ed. (Charlotte Town, Prince Edward Island).

ANENCEPHALOUS FŒTUS.

Mr. F. Wallace showed an anencephalous fœtus, with spina bifida. The mother had had two children previously, both alive and healthy. No history of syphilis. In answer to Dr. Edis he stated that there was no history of fright or shock during pregnancy.

BLIGHTED AND ATROPHIED EMBRYO.

Dr. Herman exhibited a specimen consisting of an oval sac, measuring $1\frac{3}{4}$ of an inch long by $\frac{3}{4}$ of an inch transversely, with thin, translucent wall, apparently containing clear fluid. Its wall was not quite smooth, being thicker at some parts than others, and having bags of delicate membrane attached to both its inner and outer surfaces; but there was nothing like chorionic villi. Within it, attached to its wall, was a solid body about as big as a large pin's head; and at one end of the sac was an air bubble. This specimen had been given to him by Mr. Simpson, of Fore Street, by whom he had been informed that it had been discharged after symptoms resembling those of miscarriage from a woman who supposed herself three and a half months pregnant, and followed after some hours by a placenta with a rudimentary cord. No fœtus had been noticed. Dr. Herman was inclined to regard the specimen as the dropsical membranes of a blighted and atrophied embryo.

Dr. Herman also exhibited an acardiac fœtus.

POLYPI UTERI.

Dr. Edis exhibited two polypi uteri. The smaller one, about the size of a walnut, he had removed from a patient æt. 46, mother of seven children, who had suffered from severe periodical uterine hæmorrhages for over a twelve-month. About two months before the date of operation she felt something come down in the vagina, where it remained for about a fortnight and then receded at the time ofher next period, which was very profuse.

On examination the uterus was found to be bulky, retroverted, the os uteri slightly patulous, barely admitting the tip of the finger, which detected a round, smooth projection occupying the cavity of the uterus. A small pair of ovum forceps was passed within the cervix, the polypus seized, and torsion employed until the tumour was detached, when it was removed without much difficulty. Scarcely an ounce of blood was lost.

The second polypus was a firm, fibroid growth, that had probably been at one time intramural, and become gradually extruded from the uterus. It was about the size of a goose's egg, and was attached to the posterior wall of the uterus, hanging out in the vagina. The patient was æt. 40, married and sterile. She was perfectly well until six weeks before being seen, when something came down in the passage. A month subsequently she had severe flooding, and lost a considerable quantity. Dr. Edis removed it by means of the single wire écraseur. The growth was removed from the vagina with some little difficulty by the aid of ovum forceps. No hæmorrhage occurred either at the time of operation or subsequently.

CYSTS FROM THE LABIA MINORA.

Dr. Wiltshire exhibited two cysts from the labia minora. They were removed from different patients, and contained translucent fluid. They were, he believed, extremely rare, for, with the exception of one other case, he had never seen another, and the only mention made of them in any work on women's diseases with which he was acquainted was the following by Schroeder, in von 'Ziemssen's Cyclopædia.'

"Other cysts, however, occur upon both the labia majora and the labia minora; they remain for the most part small, though exceptionally they may grow to be as large as a child's head. Their etiology is obscure. It is possible that they develop in consequence of contusions of the connective tissue, and probably also in connection with hæmorrhages. The cyst wall is firm and distinct, and the contents may be either serous or mucous in character and have a variable colour."

They were attached in a slightly pendulous manner to the apex of the labia majora, and, as would be seen, were respectively of the size of a small walnut and a hazel nut. Such growths were preferably removed by the clamp and cautery. The specimens were interesting chiefly on account of their rarity.

Dr. Matthews Duncan mentioned that a similar specimen was to be found in the Museum of St. Bartholomew's Hospital.

FŒTAL HEAD.

Dr. Brunton showed plaster casts of a fœtal head, which he had delivered for a neighbouring practitioner,

after forceps above the pelvic brim had been tried in vain, then version performed:—The inlet was found so narrow as not to permit passage of the head even in this way. After also trying to extract the head without success he applied his modification of Assalini's forceps, then failing with them, retained them upon the head, amputated the body to gain room, and having perforated between the blades of the forceps, extracted the after coming head.

Dr. EDIS thought that under the circumstances Dr. Brunton was quite justified in removing the body of the child in order to facilitate the operation of perforation. We met occasionally with cases where the pelvis was so small that it was almost impossible to perform any manipulation above the brim so long as the body of the fœtus occupied the vaginal passage, more especially as the head was securely fixed between the blades of the forceps. The risk of injuring the perineum was also much lessened.

Dr. WILTSHIRE thought it undesirable that perforation should be practised through the denser portion of the temporal bone where a softer spot could be selected; but doubtless in the present case so excellent an operator as Dr. Brunton concluded that there was no option.

PERIODICAL DISCHARGE OF MEMBRANE IN CERVICAL ENDOMETRITIS.

DR. GALABIN showed microscopic sections of a membrane passed by a married woman æt. 35. She was sterile, and suffered from severe intermittent pain during the menstrual flow, at which time she passed some small clots or solid fragments. Half way between the menstrual periods she had an attack of similar pains, ending in the discharge of a more definite piece of membrane, from one of which the section shown was taken. It resembled at first sight embryonic tissue, having round as well as angular or elongated cells, with fibrillæ among them. The border

was fringed with cylindrical epithelium, resembling that of the cervical canal. On careful examination it was seen that this epithelium was upside-down, the narrower or originally attached extremities of the cells now forming the free surface. It was clear, therefore, that the membrane was an exudation on the surface of the cervical canal of sufficient tenacity to bring away with it the epithelium on detachment.

The fibrillæ among the cells were formed by fibrin, and the angular or elongated character of many of the cells showed that there was some attempt at organisation. The outline of the epithelial border showed that it came from the villous prominences of the cervical canal. The case must be regarded as one of membranous or exfoliative cervical endometritis. He could not account for the periodical discharge of the membrane, but presumed that it might be formed under the influence of the menstrual nisus, but not become detached till the middle of the intermenstrual interval. After treatment by local applications to the cervical canal the discharge of membrane ceased.

Dr. WILTSHIRE thought the fortnightly exacerbation explicable on the hypothesis of hebdomadal periodicity which pervaded the menstrual function. He knew of many cases of fortnightly menorrhagia. Did the specimen throw any light on the beginnings of epithelial cancer? If the pathological process resembled that so ably shown by Mr. Butlin in cancer of the breast following eczema of the nipple, it had most important bearings upon treatment.

ON THE RELATION OF ANTEFLEXION OF THE UTERUS TO DYSMENORRHŒA.

By G. Ernest Herman, M.B. Lond., M.R.C.P. Lond., F.R.C.S. Eng.

ASSISTANT OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL; PHYSICIAN TO THE ROYAL MATERNITY CHARITY; EXAMINER IN MIDWIFERY TO THE ROYAL COLLEGE OF SURGEONS; HONORARY LIBRARIAN TO THE OBSTETRICAL SOCIETY OF LONDON.

In patients who suffer from painful menstruation, anteflexion of the uterus is often found. This fact has been familiar to the profession for half a century, and the interpretation has been put upon it, that the anteflexion causes the dysmenorrhœa. This interpretation has been accepted and acted upon by many gynæcologists of the greatest reputation, and denied by others of equal eminence. An inquiry into the nature of the connection between painful menstruation and bending forwards of the uterus is therefore not uncalled for.

The mode in which flexion of the uterus is commonly supposed to cause dysmenorrhœa is the following:—It is said that at the point of flexion the uterine canal is bent at an angle, and its wall on the concave side of the bend projects inwards, forming a spur or promontory, which blocks up the passage and prevents the menstrual fluid from getting out. The retained secretion distends the uterine cavity, and provokes painful contractions of the uterine muscular fibre. Sometimes the uterus cannot force the pent-up blood past the barrier formed by the flexion, and it may then be driven along the Fallopian tubes, forming a pelvic hæmatocele.

The object of the present paper is to inquire whether this is supported by facts so far as anteflexion is concerned.

In examining this theory we have to ask (1) what kind of evidence is required to prove it? (2) what amount of such evidence have we?

The evidence required is of two kinds, anatomical and clinical. It will be best to begin with the *anatomical*, as being the most simple and definite.

First, it has to be shown, that in anteflexion of the uterus the canal is bent at an angle, and that a spur of tissue projects inwards and blocks up the canal. Nearly all the works which adopt this theory contain diagrams which have been copied from book to book, and which show this angulation and occlusion of the canal. But they are diagrams only, not professing to be drawn from nature, and representing only the designer's idea of the shape of the uterus. When we look to actual specimens, or to drawings from nature, we seek in vain for these appearances.

There are in London several specimens of acute anteflexion of the uterus. There is one in University College Museum,* one in the Museum of the Royal College of Surgeons,† one in that of Guy's Hospital,‡ and another in that of the London Hospital.§ Le Gendre's atlas‖ contains a drawing¶ from nature of a section of the pelvis in which the uterus is seen to be acutely anteflexed. In each of these specimens, and in the plate, the curve of the uterine canal is quite gradual; there is no angle, nor any projecting spur of tissue, nor is there any stenosis of the canal, nor dilatation of the uterine cavity.

Next, if a specimen could be shown of retention of the menstrual blood and dilatation of the uterine cavity, for which no other cause than an anteflexion existed; or if a pelvic hæmatocele, dependent upon stenosis of the uterine canal from anteflexion could be shown, the mechanical theory of the connection between anteflexion and dysmenorrhœa might be considered proved. The result of

* T^{0}_{1}.
† 2653 E.
‡ 2259^{85}.
§ E *a*, 18.
‖ Pl. xviii.
¶ 'Anatomie Chirurgicale homolographique,' Paris, 1858.

my search for any such cases has been entirely negative. The literature of the subject is so voluminous, that I dare not say I have read everything that has been written upon it, but I have read carefully the principal works in which this theory is adopted. I have sought out every reference that I could get at, and I think I may say this, that if any piece of important evidence exists which I have not noticed, it has been also overlooked by nearly all the chief writers on the subject. The only case that I can find which, although I venture to think it not important, yet might be referred to as bearing on the question, is one of hæmatocele and anteflexion, given by Picard.* He adopts the mechanical theory, and believes that the effusion of blood arose from obstruction to the exit of the catamenial flow. But the only reason he gives for thinking so is, that "inflammatory symptoms" preceded the hæmatocele; and he asks, would this have occurred with a normal uterus? I do not think this case is important because there are many other causes that may produce pelvic hæmatocele and "inflammatory symptoms;" and there is in this case no evidence to show whether the reporter's view was correct or not. There are two cases of anteflexion with autopsies reported by Martin.† In one there was dysmenorrhœa, and the uterine canal is said to have been very narrow; but there is no mention of any dilatation of the uterine cavity in either of them.

Of course it does not follow that the theory is wrong because anatomical evidence of its correctness has not been produced. But if evidence of other kinds be equally wanting, then this deficiency becomes important.

I would therefore here make the assertion, which can be refuted by the production of a single case, that *there is no anatomical evidence that anteflexion of the uterus causes any hindrance to the escape of the menstrual fluid.*

* 'Des Inflexions de l'Uterus,' p. 108.

† 'Neigungen und Beugungen,' 2te Auflage, S. 94.

It may be urged, however, with reason, that this absence of anatomical proof does not show the theory to be unsound, because evidence of this kind is difficult to get. Dysmenorrhœa is seldom, if ever, fatal; if fatal at all, it would only be after so many secondary changes, inflammatory and other, had taken place, that it would be impossible to isolate those directly and originally dependent on the flexion. Diseases of other parts of the body which cause death, very commonly themselves produce changes in the genital organs and alterations in the menstrual functions, so that inferences cannot safely be drawn from them. When death results from accident, it is seldom that we have the opportunity of previously making full inquiry into the condition of menstruation. The nature of an obstetrician's duties prevents him, as a rule, from frequently making post-mortem examinations; and therefore it generally happens that in large hospitals these are made by a member of the staff who has no particular interest in, or knowledge of, gynæcology. These are all reasons why we might expect anatomical proof to be furnished but slowly.

On the other hand, it is now more than fifty years since the doctrine of the importance of uterine flexions was promulgated; during that time numbers of gynæcologists have directed their attention to the subject, and the medical press of all countries has teemed with papers upon it; it is therefore very surprising, seeing how common a condition anteflexion is, that if it really produce such changes, no one should during all that time have met with, or thought it worth while to put on record, a case illustrating them.

We pass now to the more important, because more easily obtained, *clinical* evidence. The arguments drawn from clinical phenomena which have been brought forward in support or illustration of this theory, fall into four groups. 1. That drawn from the patient's description of her pain. 2. That from difficulty in introducing the sound. 3. That from the frequency with which dys-

menorrhœa and anteflexion are associated. 4. That from the effect of treatment.

I. It is said that women suffering from flexion of the uterus describe pains, occurring at their menstrual periods, which are followed and relieved by a gush of discharge; and it is assumed that such pains are caused by collections of menstrual blood in the uterus, behind the supposed angle of flexion, the pain ceasing when the fluid finds an exit. This can hardly be taken as an argument seriously affecting the question at issue; for first, it is, like all subjective symptoms, only to be accepted with reserve; second, if the patient's account of her sensations be strictly accurate, it does not follow that this interpretation of them is correct; third, similar statements are made by patients who have no flexion; fourth, the menstrual pain felt by the subjects of anteflexion is not always, but on the contrary, only seldom, thus described; and last, while pain of this kind was at its greatest severity, the uterine sound has been passed without difficulty, and without its withdrawal being followed by any discharge of blood.*

II. Another clinical experience, which only demands notice because it has been often mentioned as evidence that the uterine canal was obstructed, is, that there has been difficulty in passing the sound. But there are too many ways of accounting for this for it to be at all demonstrative that the canal is at any point smaller than usual. The apparent obstruction may be due to want of dexterity on the part of the operator, or to the point of the sound catching in a fold of mucous membrane, or to the instrument not being bent in correspondence with the curve of the uterus. Where narrowing of a canal is the condition which prevents an instrument from being easily passed through it, there is hindrance to the withdrawal, as well as to the introduction, of the instrument, especially if, like the uterine sound, its extremity is bulbous. I have never met with difficulty in the withdrawal of the

* Schultze, 'Lageveränderungen der Gebärmutter,' 1881, S. 50.

ordinary uterine sound (except where there was unmistakable stenosis from some other cause than anteflexion), nor have I seen its occurrence recorded.

III. The clinical fact which has procured this theory such wide acceptance, is the undeniably large number of cases of dysmenorrhœa in which the uterus is found anteflexed. Many gynæcologists have published statistics, compiled from their notebooks, showing in how large a proportion of cases they met with anteflexion, and how often it was associated with the different symptoms ascribed to it. But before we can conclude from the frequent co-existence of the phenomena in question, that *because* the uterus is bent forward *therefore* the patients menstruate painfully, we must know how often the bending occurs without any alteration in the functions of the organ. The practice of an obstetric physician can never give this information, because the patients whom he examines come to him on account of some disorder of the genital organs, very often dysmenorrhœa; he does not have an opportunity of examining women who think their uterine functions are naturally performed, and therefore he cannot tell in how many of them the uterus is flexed.

Numerous investigations have been made, both post-mortem and during life, to determine the frequency of anteflexion, as well as of other displacements. In quoting them I shall for the sake of clearness and brevity only cite that part of the figures which relates to anteflexion.

Boulard* examined after death 27 adult nulliparous females, 19 female children between the ages of two and thirteen, 57 fœtuses at full term, and 4 premature fœtuses, 107 in all; and in 98 of these he found anteflexion present. The exceptions to the rule consisted of 7 fœtuses and 2 children. He came to the conclusion that "in the fœtus, the young girl, and the woman who has not had children, the body and neck of the uterus have not the same direction; that it is not correct to say that the axis of the uterus is that of the pelvic inlet. The axis of the body

* 'Gazette des Hôpitaux,' 1853, p. 464.

is almost horizontal, the neck only having the direction generally stated." Lorain* found in 25 fœtuses, 6 anteflexions. Soudry,* out of 71 children, found 41 anteflexions. Goupil,* in 30 autopsies on children, found 14 anteflexions.

If these figures were the only information we had, it might be replied that, although anteflexion is natural in the fœtus, yet at puberty the development which the nterus undergoes causes the curve to disappear. But besides the fact that 27 of Boulard's cases were adults, in all of whom there was anteflexion, we have further the experience of Aran,† who in nine autopsies on virgins between the ages of seventeen and twenty-seven, found 6 anteflexions, two of them being "most marked;" and in 10 others who had not had children, there were 6 "very pronounced" anteflexions. Out of 61 autopsies made by Richet* on women who had not had children, he found the uterus 33 times normal in position, and 11 times anteflexed.

Another objection which has been made to the foregoing figures is, that the anteflexion was in most of them a post-mortem change. Boulard ‡ I think sufficiently refuted this; but there are other figures to which the criticism does not apply. There is a class of patients from whom we can get the important information as to the frequency of anteflexion without, as well as with, uterine symptoms, those, viz. who seek treatment, not for disordered function of the sexual organs, but for local contagious affections. In these patients, while doing what is required for the local malady, the opportunity of ascertaining the shape of the uterus is given. Several French gynæcologists have availed themselves of the field for research in this direction afforded by the Lourcine Hospital in Paris.

Depaul§ gives the result of his examination of 50 nulliparous women. In 32 of these the uterus was straight,

* Bernutz and Goupil, op. cit., p. 467.

† 'Archives Générales de Médecine,' 1858, p. 313.

‡ Op. cit.

§ 'Bulletin de l'Academie de Médecine,' 1853-4, p. 640.

and coincided, or nearly so, with the axis of the pelvic brim. In 7 there was anteversion, and in 3 cases the uterus was "manifestly" anteflexed. He does not say that none of these had been pregnant, but merely that they had not been mothers; and he does not define what degree of bending he calls an anteflexion; but from the word "manifestly" (manifestement) one would infer that tolerably acute flexions are implied; hence perhaps the comparatively small number that he records. Gosselin* investigated the same point on patients who had never been pregnant. Out of 45 cases he found 18 in which the uterus was "normal" in shape and position. In 16 there was marked anteflexion, and in 11 slight anteflexion. Goupil† of 115 observations on healthy women, mostly at the Lourcine, found 41 anteflexions, cases in which the body and cervix of the uterus formed an appreciable angle; 24 slight anterior curvatures, and only 19 in which the uterus was nearly or quite straight. Panas‡ gives the result of 114 observations taken "with the greatest care" at the Lourcine. He found among these 44 in which the uterus was straight, and 40 in which it was anteflexed. He comes to the conclusion that anteflexion in its different degrees is a physiological condition in nearly one half of all cases; and that a uterus not bent, wrongly considered as the only physiological condition, only represents that of one third of the cases.

Putting together the accounts of all those who have thus investigated the shape of the uterus in adults who were not selected on account of their suffering from uterine symptoms, and who had not had children, we get the following figures:

* 'Bulletin de l'Académie de Médecine,' 1853-4, p. 640.

† Bernutz and Goupil, op. cit., p. 465.

‡ 'Archives Générales de Médecine,' 1869, vol. i, p. 264.

	Total.	Straight.	Anteflexed.
Boulard . .	27 ...	0 ...	27
Aran . .	19 ...	7 ...	12
Richet . .	61 ...	33 ...	11
Depaul . .	50 ...	32 ...	3
Gosselin . .	45 ...	18 ...	27
Goupil . .	115 ...	19 ...	65
Panas . .	114 ...	44 ...	40
Total . .	431	153	185 or 42·9 per cent.

These totals appear to me to justify the conclusion of Panas.

But from an examination of the figures it will be evident that the investigators from whose writings they are compiled, did not all agree in their definition of an anteflexion. The difference between the report of Boulard, who in every one of twenty-seven cases found anteflexion present, and that of Depaul, who in fifty cases only found anteflexion three times, is too great to be due to fortuitous grouping together of cases of the same kind; the probable explanation is, that the observers differed as to the amount of anterior curve which in their opinion deserved the title of anteflexion.

If the correctness of the figures be admitted, it may be said that, while a slight degree of anteflexion is so common as to be physiological, and may exist without symptoms, yet the more acute curves do interfere with function, and bring the patient to the obstetric physician. The accounts from which I have quoted contain nothing which is opposed to this view.

Further investigations seemed to me wanted to determine the frequency of the different degrees of anteflexion, and whether painful menstruation is more common in those women who have acute flexions of the uterus than in those in whom the organ is slightly or not at all bent.

I have carried out this investigation on patients who were under treatment because they were suffering from local contagious diseases. Most of them were in the Female Lock Hospital, Harrow Road; some were in the

infirmary of the Whitechapel Workhouse, and some in the Venereal Ward of the London Hospital. I have to thank Mr. W. J. Coulson and Mr. Buxton Shillitoe, surgeons to the Lock Hospital; Dr. J. J. Ilott, resident medical officer to the Whitechapel Infirmary; and my colleagues at the London Hospital, for permission to use their patients for this inquiry.

In order to reduce the problem to the simplest possible form, I rejected, for the inquiry, all patients who had had children or abortions; for in them the puerperal process might have introduced other pathological elements. I rejected also all patients who were not menstruating regularly, for in them the condition causing the amenorrhœa might have produced other changes as well. There were, of course, in some whom the local disease was of a kind which made vaginal examination undesirable; and there were some who were suffering from perimetritis. But, with these exceptions, I took all just as they came, without any selection. To prevent any unconscious bias in my own mind from leading to error, I always, before recording in my note-book the shape of the womb, asked the gentleman in charge of the case to give me his opinion, so that what I wrote down represented a statement in which two observers agreed. I have to thank Mr. G. H. Bishop, the house surgeon of the Lock Hospital, Dr. Ilott, and my resident accoucheurs at the London Hospital, Mr. Lloyd Francis, Mr. C. E. Jennings, and Mr. Fenton Jones, for thus helping me to make my observations accurate. In describing the shape of the uterus, the terms used were, that it was either straight or bent at an obtuse angle, at a right angle, or at an acute angle. The first term needs no explanation. The latter means, not that the flexion was supposed to form an angle, but that the uterus was so bent that a line continuous with the axis of the upper part of the uterine body would form, with one continuous with the axis of the lower part of the cervix, an obtuse, right, or acute angle as the case might be. In the cases, which were few in number,

in which we did not agree as to the term most correct, I set down at the time the difference of opinion, thus, right or acute, obtuse or right, &c. In subsequently tabulating them I have taken the lower estimate of the degree of flexion, *e.g.* one put down as right or acute I have classified as flexed at a right angle. I think, therefore, that I have taken every precaution that I could have taken to prevent any unconscious bias of my own mind from leading me to wrongly estimate the facts.

I have examined 111 women who had never been pregnant, who were menstruating regularly, and who submitted to examination not for uterine disease, but for local contagious disorders. Of these, in 43 the uterus was as nearly as possible straight. In 14 there was slight anteflexion, so that the neck of the uterus seemed to form with the body an obtuse angle. In 30 the uterus was so much bent forward that the neck formed with the body a right angle; and in 23 the anteflexion was at an acute angle.

In short, out of 111 patients, pronounced anteflexion was present in 53, or 47·7 per cent.

(For the sake of completeness, I may parenthetically mention that in two cases there was retroversion, but the axis of the uterus was nearly or quite straight, and the cases are put under that head; and in one there was retroflexion; this case is not included in the figures which follow).

The proportion of anteflexions which my investigation revealed agrees so closely with the figures I have quoted from other authors, that I think all of them together justify the assertion that *in nearly half of all nulliparous women the uterus is anteflexed.*

The fact, however, that anteflexion is exceedingly common is no proof that it does not cause menstrual pain. It may be asserted that although the slighter forms are insignificant, yet that the more acute flexions cause suffering. It may also be said that a flexed uterus which may give no trouble so long as its owner remains single, may yet, when subjected to the altered

functional conditions involved in marriage, give rise to painful symptoms.

To find out whether the frequency of dysmenorrhœa corresponded to the degree of the bending, I inquired as to the amount of the menstrual pain of each of the 111 women that I examined. I took great care not to put leading questions, and I made a point of *writing down* the shape of the uterus *before* I inquired about the pain. The patients were asked first whether they suffered pain or not when they were unwell. Those that said they had pain, were further asked whether the pain was only slight, or was very bad, and if they said it was very bad, inquiry was made as to whether they were laid up at the menstrual period or not. They were thus divided, in respect of pain, into four classes 1. Those that had no pain. 2. Those that had slight pain. 3. Those that had severe pain; and 4, those whose pain was so bad as to compel them to lie up.

The following is the result of the investigation:

Of the 43 patients in whom the uterus was nearly or quite straight,

16 menstruated without pain.
15 „ with slight pain.
7 „ with much pain.
5 „ with pain so bad as to lay them up.

Of the 14 cases in which the uterus was slightly anteflexed,

4 menstruated without pain.
5 „ with slight pain.
2 „ with much pain.
3 „ with pain so bad as to lay them up.

Of the 30 cases in which the uterus was anteflexed at about a right angle,

12 menstruated without pain.
9 „ with slight pain.
7 „ with much pain.
2 „ with pain so bad as to lay them up.

Of the 23 cases in which the anteflexion was acute,
10 menstruated without pain.
6 „ with slight pain.
4 „ with much pain.
3 „ with pain so bad as to lay them up.

Putting them together so as to show the facts in a broader way, it is found that out of 57 women in whom the uterus was only slightly or not at all flexed, in 40, or 70 per cent., there was little or no pain at the menstrual period; and in 17, or 29 per cent., there was severe pain. Out of 53 women in whom there was pronounced anteflexion, in 37, or 69 per cent., there was little or no pain at the menstrual period; and in 16, or 30 per cent., there was severe pain.

Classifying them differently, so as to show what influence the *acuteness* of the flexion has, it is found that out of 23 cases with acute anteflexion, in 16, or 69·5 per cent., there was little or no menstrual pain; in 7, or 30·4 per cent., severe pain. Out of 87 others, in whom such anteflexion as was present was not acute, in 61, or 70·1 per cent., there was little or no menstrual pain; in 26, or 29·8 per cent., severe pain.

The differences between these two sets of figures are so trifling that I think them practically *nil*. The figures show two broad facts:—1. That menstruation is as often painful when the uterus is straight as when it is anteflexed. 2. That it is as common for menstruation to be painless when the uterus is anteflexed as when it is not anteflexed.

With regard to the view that married life might cause the development of symptoms in an anteflexed uterus, I would say, that most of the subjects of my investigation were prostitutes; and one would think that whatever injurious effect upon the sexual organs ordinary marital intercourse might have, would also result, but much intensified, from the mode of life of a prostitute.

It seems to me that the facts point clearly to the

inference *that the degree of bending forward of the uterus does not appreciably influence the presence or severity of menstrual pain.*

IV. The last method of proof which is possible is that from *the effect of treatment.*

If anteflexion generally causes dysmenorrhœa, it ought to be the case (1) that, as a rule, all treatment of such dysmenorrhœa which does not straighten the uterus should be inefficient; and (2) that treatment which does straighten the uterus should as a rule be successful. I insert the words "as a rule" because clinically cases are often complicated, and general assertions, true of simple cases, may not hold good when applied to a combination of morbid conditions.

1. The distinguished physician to whose able advocacy and high reputation the wide acceptance of the mechanical theory of uterine pathology is mainly due, has advocated rest in the recumbent posture as the "first principle of treatment"* in anteflexion. However useful this treatment may be, and whatever its efficiency in straightening the uterus, there are so many morbid processes which tend to recovery when the patient is kept at rest, that the disappearance of symptoms under this regimen can hardly be held to be conclusive as to their origin.

2. Dr. Graily Hewitt has also invented for the treatment of anteflexion a most useful pessary, the "cradle." I have not seen any statement of the frequency with which benefit to dysmenorrhœa has followed its use. I have known menstrual pain diminish and cease while the patient was wearing one of these pessaries. But I have never found the uterus straightened while it was being worn. I do not think the cases are many in which it will remove dysmenorrhœa; but when it does so, it is without straightening the uterus.

3. It is well established that there are cases in which enlargement of the cervical canal by incision cures dysmenorrhœa. Acting on the theory that dysmenorrhœa

* 'Obst. Transactions,' vol. xxii, p. 176.

occurring with anteflexion is due to narrowing of the canal owing to the bending, Dr. Marion Sims has planned an operation in which the incisions are so directed that, if extensive enough, they would make the canal straight. I have not seen any published cases showing the result of that operation, and what proportion of cases it relieves; but it is quoted with approbation by several distinguished compatriots of the author; and it is scarcely conceivable either that they would adopt, or that a man so eminent as Dr. Sims would promulgate, an operation which had never been followed by at least apparent benefit. But any one who will examine a section of an acutely anteflexed uterus will see that it is impossible by incision to obliterate the bend of the canal, except by cutting so deeply as to reach either bladder, or peritoneum, or both. This anatomical argument applies only to the fresh incisions; after they have healed, the space gained by them would be much less than when recently made. An operation in which the incisions were no deeper than they could be safely made, if it widened the canal, would not make it straight; and cicatrization would restore it nearly, if not quite, to its former condition. Therefore, Dr. Sims's operation, if successful, is an instance of the cure of dysmenorrhœa with anteflexion without straightening the uterus.

4. It is well known that there are cases of dysmenorrhœa in which benefit follows dilatation of the uterine canal, either by bougies, tents, or an expanding sound. This has been claimed as evidence that the anteflexion is the cause of the dysmenorrhœa, it being assumed that the effect of the dilatation is simply mechanical, that there is stenosis, and that the anteflexion is the cause of the stenosis. It is impossible here to discuss this very wide subject. I will therefore confine myself to stating the objections to this theory, which are: (1) That the therapeutic effect of dilatation is not proportionate to the amount of resistance encountered by the dilating agent. (2) That dysmenorrhœa, removable by dilatation, is met with when the uterus is straight as well as when it is bent,

and (3) that the anteflexed uterus remains nearly or quite as much bent after the dilatation as before it.

5. There is one agent which can, beyond question, straighten an anteflexed uterus, viz. the intra-uterine stem. There is no doubt that in some cases menstrual pain is relieved by the use of these instruments, but their effect is not confined to the straightening of the uterus. It is well known that when an instrument just filling the cervical canal is left there the canal soon dilates, so that the instrument fits loosely. The intra-uterine stem is therefore a dilator of the cervical canal as well as a straightener of the uterus. Besides this, it irritates the organ, causes a determination of blood to it, and usually more or less endometritis. So common an effect is this, that one advocate of the intra-uterine stem has said that he looks upon the occurrence of hæmorrhage and free discharge as a favorable sign. It is possible that this stimulant or irritant effect (whichever term be preferred) may in some cases do good. There is yet another source of fallacy. Those who advise the use of stem pessaries lay much stress on properly preparing the uterus, so that it may tolerate the instrument; this preparation consisting in the removal of all inflammation or congestion of the pelvic organs. Seeing how frequent anteflexion is, it is to be expected that, unless it were a prophylactic against these conditions, it would often be associated with them. It may possibly be sometimes the case that benefit seeming to follow the wearing of an intra-uterine stem is really due, not to the instrument, but to the careful preparatory treatment. Benefit following the wearing of the intra-uterine stem may have been due to any one of these three causes, or to the combination of them, and not have resulted from the straightening of the uterus. But if it be true that anteflexion generally causes menstruation to be painful, then the stem pessary, when well tolerated by the uterus, ought to remove the pain as constantly as it without doubt removes the flexion: and in cases of dysmenorrhœa with anteflexion, in which the removal of con-

gestion, vaginal pessaries, dilatation, incision (methods of treatment which do not remove anteflexion), have been tried in vain, the intra-uterine stem ought to be almost invariably successful.

Unfortunately, the literature of the subject does not furnish any scientific statement of the frequency with which intra-uterine stems cure dysmenorrhœa associated with anteflexion. Nearly all authors who have written upon the subject have given only their general impression as to what is the usual result; they have not given their experience in full. Some gynæcologists of ability have thought that they saw much benefit from intra-uterine stems; others, of equal eminence, have condemned the instrument altogether. These general statements seem to me likely to be erroneous, for this reason, that an individual observer tends to see an undue proportion of the cases in which his own treatment has been successful and that of others unsuccessful; for those patients to whom he has done good continue to consult him, while those for whom his treatment has been unsuccessful lose confidence in him, and go to some one else. The only way to avoid this source of error is to carefully record *every case*, so that not only the number of cases cured may be known, but the number of those in whom treatment of the same kind was unsuccessful, was impracticable, or the patient was lost sight of. I cannot find any author who has done this in a way that bears materially on the present question; the cases published in detail are too few to be of use, and those writers who have given their experience in figures do not isolate the cases in which the stem was used for dysmenorrhœa with anteflexion from those in which it was resorted to for different conditions and symptoms. I am obliged, therefore, to say that we have no information as to the frequency with which straightening the uterus with an intra-uterine stem cures dysmenorrhœa associated with anteflexion. I do not think it worth while to give my own experience, because, knowing that these instruments are attended with some risk, and doubting their

utility, I have only employed them in a few cases in which many other kinds of treatment had failed; and it might be said that it is not fair to test any treatment by cases selected for their incurability.

I cannot but regard the extreme differences of opinion that still exist as to an instrument which has now been before the profession for more than fifty years, as in themselves very important. The dangers which are believed to accompany it seem to me no adequate explanation of the disfavour with which many regard it. If it were as uniformly successful as by the theory of its action it ought to be, its efficiency as a means of a cure would long since have been acknowledged. There might still be differences of opinion as to its safety, or as to whether the malady was enough to make it worth the patient's while to incur the risk of possible ill consequences, but there would be no dispute as to the efficacy of the stem in removing menstrual pain.

The general conclusions, then, which I draw from the effect of treatment, are these:

(1) That dysmenorrhœa associated with anteflexion is frequently cured without straightening the uterus.

(2) That straightening the uterus does not invariably cure the dysmenorrhœa, and that there is no evidence that it does so frequently.

In summing up the purport of this paper, I would submit to the Society the following propositions:

1. That there is no anatomical evidence that anteflexion causes any appreciable hindrance to the escape of menstrual fluid.

2. That there is reason to think that well-marked anteflexion is present in nearly half of all women who have not borne children.

3. That therefore it is to be expected that anteflexion and dysmenorrhœa would frequently coincide.

4. That dysmenorrhœa is practically as common when the uterus is straight as when it is anteflexed.

5. That painless menstruation is practically as common when the uterus is anteflexed as when it is not.

6. That when dysmenorrhœa and flexion go together, the severity of the pain bears no relation to the degree of the bending.

7. That dysmenorrhœa associated with anteflexion is frequently cured without straightening the uterus.

8. That there is no evidence that straightening the uterus invariably, or even frequently, removes dysmenorrhœa which is associated with anteflexion, and in which other methods of cure have been ineffectual.

9. That these facts tend to show that the relation between anteflexion and painful menstruation is not that of cause and effect, but merely that of coincidence.

APPENDIX.

In the discussion which followed the reading of this paper, one speaker alluded to the fact, which he considered important, that most of the patients were prostitutes. I have therefore thought it well to give the exact numbers, and the ages of the patients, which may also be of interest.

Age . . .	14	15	16	17	18	19	20	21	22	23	24	25	26	27	32	34	42	45	Total.
Prostitutes . .	0	1	2	10	16	15	2	7	4	5	2	0	1	1	1	0	1	0	68
Not such or doubtful	1	1	1	10	8	5	3	4	0	2	3	1	0	0	1	1	0	1	42
Total . .	1	2	3	20	24	20	5	11	4	7	5	1	1	1	2	1	1	1	110

The following were the occupations of some of those who were not prostitutes:—General servants 17, laundresses

3, married 3, living in concubinage 2, shop-girls 2, barmaids 2, housemaids 2, parlourmaid 1, dressmaker 1, ironer 1, matchmaker 1. Of the occupations of the others I can get at no record.

Dr. GERVIS, after expressing his admiration of the care and ability which characterised Dr. Herman's communication, ventured to doubt whether his deductions were entirely valid, even if his facts remained unchallenged. He believed it to be quite possible for even a flexion of the uterus to exist and yet no obstruction to be produced, provided the calibre of the cervical canal were not intruded upon by the bend. For example, in the specimen in the College of Surgeons' Museum, to which the author referred, the other half of which was in the St. Thomas's Museum, there was no obstruction in the utero-cervical canal, although a very marked curvature was present. And, indeed, it was a question whether between cases of sharp flexion on the one hand and cases of simple uterine version on the other, it would not be well to recognise an intermediate class of cases of antecurvature, in which, with the bend forward, there was not necessarily any obstruction, and to which probably Dr. Herman's cases of anteflexion without symptoms would mostly belong. He (Dr. Gervis), however, still held to the belief that if there were obstruction in the cervical canal, however produced, there would result the symptoms characterising obstructive dysmenorrhœa, although the mere position of the uterus, apart from the obstruction, he thought of small importance.

Dr. AVELING asked Dr. Herman what method he had adopted in discovering the amount of displacement, and in distinguishing between anteflexion and anteversion; also whether the condition of the bladder had been considered in each case? Dr. Aveling thought anteflexion was the cause of obstruction resulting not only in dysmenorrhœa but in sterility.

Dr. HERMAN explained that he estimated the anteflexion by bimanual examination.

Dr. GALABIN thought that great credit was due to Dr. Herman for the scientific manner in which he had endeavoured to approach the solution of this controverted question. But there was one consideration which diminished the convincing effect of all such statistics, namely, that if we knew the previous opinions of an author his statistical inquiries invariably come out in support of those opinions. The recent statistics of Dr. Graily Hewitt on the relation of uterine flexion to hysteria would, if accepted as free from any influence of unconscious bias, demonstrate as completely the extreme importance of anteflexion as

those of Dr. Herman would, on a similar hypothesis, have demonstrated the contrary. Again, Dr. Emmet had published the statistics of many hundred cases, from which he inferred that flexion of the uterine body was, in *all cases*, associated with pain during the menstrual flow. He thought that Dr. Herman's argument was, in some points, open to criticism. He made no distinction in his statistics between congestive and obstructive dysmenorrhœa, whereas it was perfectly easy to distinguish, by the time of the pains, between a certainly congestive dysmenorrhœa and one which was or might be obstructive. If it were true, as held by Schultze, that permanent straightness of the nulliparous uterus is by itself a proof of induration from chronic metritis, these statistics would be quite intelligible, even though anteflexion were a frequent cause of obstructive dysmenorrhœa, for congestive dysmenorrhœa might be commoner among the straight uteri. Again, it was a drawback that the statistics were taken from prostitutes who had probably all, or nearly all, had gonorrhœa, and could hardly have escaped uterine congestion and endometritis. He thought that in general the congestive basis of dysmenorrhœa preponderated over the obstructive, and, among prostitutes, the preponderance might well be so great that all clue might be lost to the causation of obstructive dysmenorrhœa in statistics in which both forms were massed together indiscriminately. Dr. Herman based a main part of his argument upon no anatomical evidence of obstruction having been produced, and the evidence he demanded was that a distended uterus should be shown at autopsies. But surely it was contrary to all physiological analogy to expect any such thing. In stricture of the male urethra, unless there were absolute closure, we found not a distended bladder, but a contracted bladder with thick walls, even though such a bladder were unable to empty itself completely. *A fortiori* the uterus, having thicker walls in proportion, would become hypertrophied if necessary, to resist permanent distension. Thus we did not find it distended in even extreme stenosis of the canal. The only anatomical evidence of obstruction we could possibly expect was enlargement of the uterus from thickening of its walls, and this did not unfrequently coexist with anteflexion, though absent often enough to show, as he thought, that anteflexion did not necessarily produce any perceptible obstruction. He thought the four cases of preserved uteri cited by Dr. Herman, which might have been cases of congenital anteflexion, insufficient to prove that anteflexion never caused any obstruction. This question should rather be settled by examination of the fresh uterus. Making an antero-posterior section of a fresh-flexed uterus, he had found that bending it a little more flattened the canal, while straightening it a little separated the anterior and posterior walls. If suspended in a bottle by the fundus, the effect of gravity would tend

to straighten the organ a little, obliterate any flattening of the canal even if it existed, and the uterus would become hardened in this condition. It seemed to him so obvious as to be self-evident that if a straight canal, having flaccid rather than stiff walls, were bent, its calibre would be diminished. Impediment might thus be produced, if not to perfectly fluid blood, yet to clots or shreds of membrane. If the canal were originally curved the case would be different. He was astonished that Dr. Herman found strongly marked anteflexion in nearly 50 per cent. of his cases. His own experience, in the case of virgins who came for treatment for amenorrhœa, would agree more nearly with that of Professor Depaul, who found only 6 per cent. He thought that the discrepancy might be explained when he heard that Dr. Herman examined solely by the bimanual method. Dr. Herman's statistics might perhaps apply, not so much to uteri, which actually had a marked anteflexion, as to those which could be brought into such a condition by pressure from above.

Dr. Heywood Smith thought Dr. Herman had rather exaggerated the description of the conditions of the uterine canal in cases of anteflexion in saying that there existed a spur of tissue projecting backwards into the canal. He would refer in proof of the antecurve of the fœtal uterus, to a fine section of the whole pelvis of the fœtus in the museum of the Hospital for Women, where it would be seen that the whole uterus is gradually and evenly curved forwards. With regard to Marion Sims' operation, it was not intended as a means of straightening the uterus, but of cutting as it were a new and straight canal. He agreed with Dr. Herman as to the frequency of the association of sterility with anteflexion, but his explanation of that condition was, not that the uterine canal was constricted, but that the flexion elevated the os uteri forwards up against the pubes, so that it was lifted above the pond of seminal fluid that gravitated into the posterior *cul-de-sac* of the vagina in the supine position. There was no doubt but that in many cases, as Dr. Braxton Hicks observed, frequent reposition of the uterus and the passing of a thick uterine sound led to immediate relief of the dysmenorrhœal symptoms. Then, with regard to the history of the case, patients with anteflexion described the pain, which was quite characteristic, as preceding the flow, and referred it to the hypogastrium, and as being of a distinctly bearing down and forcing character.

The President complimented Dr. Herman on the excellence of the method which he had pursued in the study of the subject. It was a great point in his demonstration that the dilated uterus and the spur-like obstruction at the internal os, so frequently depicted, were never seen. No such specimen was described except from imagination,—none was found in museums. Specimens well described showed no dilatation of the

uterine cavity and no spur; and he (Dr. Duncan) believed there was no obstruction. By statistics and by a mass of other evidence, Dr. Herman had brought his opinions far nearer to proof than those had done who held other views. Much had been made of the condition of supposed obstruction. Now, a specimen of anteflexion with complete atresia or closure of the cervical canal was shown by him lately to the Society, and in it there was no spur and no dilatation of the uterine cavity. If there was only a small or very contracted passage, there was still room enough for blood to pass freely, not only the few ounces in a few days of a menstrual period, but so much as to let the woman bleed to death in a very short time. Along with Dr. Gamgee he had, some years ago, published a paper in the 'Journal of Anatomy and Physiology,' showing the facility of the passage of blood through capillary canals, and there was much clinical evidence to the same effect.

Dr. Herman, in reply, said that he had not disputed the evidence of obstructive dysmenorrhœa. But if it were admitted that there was obstruction, it did not follow that the obstruction was due to flexion. He was quite aware that in estimating such points as the degree of flexion, preconceived opinions were apt to unconsciously bias the investigator. He had stated in his paper the precautions he had taken to prevent any such bias in his own mind from affecting the result. Dr. Hewitt's paper, to which Dr. Galabin had referred, only showed that a number of invalids got well under the influence of rest and good diet. He (Dr. Herman) did not think that was enough to prove that their symptoms were due to anteflexion. Dr. Emmett's statistics did not bear on the question; for this author found anteflexion frequently associated with dysmenorrhœa, because he only examined patients who consulted him for some uterine trouble. Dr. Herman was aware that there were other kinds of dysmenorrhœa besides that supposed to be due to flexion; and it was possible that some of those whom he examined, being prostitutes, might have had dysmenorrhœa from some uterine or ovarian condition brought about by their mode of life. This being fully admitted, if it were the fact that anteflexion caused dysmenorrhœa, there still ought to have been a decided preponderance in the frequency of dysmenorrhœa among those whose uteri were anteflexed. In saying that stenosis of the canal should lead to dilatation of the uterine cavity, he had only quoted what was stated and shown diagrammatically in many books; and the terms "spur" or "promontory" were not his own, but were used in works of high repute. Theoretically, of course, it was the fact that fluid would flow a little more readily along a straight tube than along a curved one; but taking into consideration the shape and size of the uterine canal, the amount of fluid that had to flow through it, and the length of time allowed for that flow to take place, the

mechanical difference would only amount to some infinitesimal fraction; it was not appreciable. It was very rarely possible to distinguish congenital from acquired anteflexions; if anteflexion were found, how could we tell (unless the patient had been examined at some previous time) that it had not been the case from the beginning? He did not know any way of diagnosing anteflexion so certain as bimanual examination. He did not think that in his cases the anteflexion had been produced by the method of examination; if it were so, it was remarkable that his figures should so nearly agree with those of other investigators.

NOVEMBER 2ND, 1881.

J. MATTHEWS DUNCAN, M.D., F.R.S. Ed., President, in the Chair.

Present—54 Fellows and 6 visitors.

Books were presented by M. H. Vanden Bosch, Dr. W. L. Richardson, Dr. Edw. T. Reichert, and the Obstetrical Society of Boston.

Herbert G. Cronk, M.B, was admitted a Fellow of the Society, and Jas. G. Creasy, M.R.C.S. (of Brasted), was declared admitted.

The following gentlemen were elected Fellows:—Wm. Alex. Hepburn, F.Fac.P.S. Glas. (Coxhoe, Durham); Arthur Perigal, M.D. (New Barnet); Archibald Sloan, M.B. (Glasgow), and Francis P. Taylor, F.R.C.S. Ed. (Prince Edward Island).

REMOVAL OF A LARGE FIBROUS POLYPUS.

By HEYWOOD SMITH, M.D.

M. H—, æt. 35, single. Was admitted into the Hospital for Women, October 6th, 1881. Catamenia commenced at 12½ years, regular, lasts seven days with pain; latterly pain in sacrum and hypogastrium for three days previously.

Five years ago she began to have menorrhagia with sacral pain and bearing down in the hypogastrium. Between the periods she had leucorrhea which has gradually increased. This went on for two years before she consulted a doctor. She was under his care for twelve months. Three years ago she began to have pain in the right side which has increased at each period. For the last twelve months the catamenia have been profuse, and she noticed the abdomen enlarging; occasionally she has had difficulty in micturition.

On admission she was in fair condition, but very much blanched. In the hypogastrium a hard tumour presented, reaching more than half way to the umbilicus. *Vaginal examination:* about one and a half inch from the vulval orifice a hard tumour presented, rather pointed towards the outlet; it looked mottled, and pitted slightly on pressure. It was impossible to reach more than half way up the tumour, which distended the vagina so that its walls seemed tightly stretched. The sound appeared to pass higher on one side than the other, but the cervix could not by any possibility, even with the help of an anæsthetic, be reached. The diagnosis was a fibrous polypus, and its removal was determined on.

The following operation was performed on October 13th. The patient being placed under bichloride of methyline, an attempt was again made to reach the cervix uteri, but unsuccessfully. A steel wire écraseur was then passed, and several ineffectual attempts having been made to get the loop beyond the widest circumference of the tumour, about a quarter of the mass was encircled and cut off; then, in order to arrest the hæmorrhage, the cut surface was seized with a pair of strong forceps, and the steel loop again passed over the tumour; as there was still considerable difficulty in the manipulation, and the perineum seemed likely to give way, it was divided freely with a scalpel down to the sphincter ani. The wire was then pushed higher up and tightened, when it was felt to have slipped up and to be constricting the neck of the

polypus. The pedicle was then cut through and the tumour was free in the vagina. The author's tumour-forceps were then applied and strong compression exercised, yet though the divided perineum gave more room, it was found impossible to extract the tumour. The écraseur was therefore applied again and the tumour cut into three portions, which were easily removed. The cervix was found fairly healthy; the stump of the pedicle, which was just inside the posterior margin of the os, was cauterised; the edges of the divided perineum were brought together with three silkworm sutures; the vagina plugged with matico and carbolised oil, and the patient put to bed. During the operation the assistant broke two strong steel wires in trying to get them through the slot of an ordinary écraseur, thereby demonstrating the value of the author's modification which allows of the head of the écraseur being opened in order to receive the loop without its being bent into so sharp an angle as is necessary for its passage through the slot.

The next day the temperature reached 103° F. at 3.30 p.m., after which it gradually subsided. The tumour weighed 1 lb. 10 oz. The stitches were removed from the perineum on the fifth day, and on the eighth day the perineum was found completely healed. On October 28th the cervix was examined and found natural, and the uterine sound passed two and a half inches. The abdominal tumour had entirely disappeared.

Remarks.—This case is an instructive one as showing the danger to the patient's life both from the hæmorrhage, and from the increased danger of the operation that resulted from the nature of the tumour remaining so long unrecognised. Much of the pain arose doubtless from the extreme tension of the vaginal walls; this, too, was a source of danger, as the necessary manipulations might have caused their rupture. Difficulty and danger also existed from the necessity of operating without any information being possible as to the situation of the cervix uteri. The history helped to exclude the proba-

bility of the tumour being the inverted uterus. Another feature of interest was the impossibility of removing the tumour whole from the vagina, and the deliberate division of the perineum to facilitate the removal.

Dr. MURRAY having seen the same accident occur at the time of removal of the tumour, he would certainly advise the slicing or otherwise diminishing the mass before extirpation. The case was under Dr. Carter's care at the Soho Hospital, and presented very many difficulties at the onset of and during the operation, but subsequently did well.

Dr. BARNES thought the course pursued by Dr. Smith in dividing the perineum by incision was the right one. In a similar case which he had witnessed, the perineum was torn, and his impression was that the wound became a main factor in fatal septicæmia. When we divided the perineum by the knife we made a clean wound in accordance with our design, and it could be closed afterwards by sutures.

Dr. ROUTH said he remembered a case which he had seen and treated—a patient of the late Mr. Isaac Baker Brown, when that gentleman was ill. The fibroid filled the vagina and reached up to the umbilicus. Mr. Brown had diagnosed this tumour as enlarged uterus, because on passing the finger just within the vagina, one came against a depression like the os uteri, and beyond there seemed an aperture, into which a sound could be passed several inches up. With great difficulty he (Dr. Routh) managed to feel a small portion of the rim of the os uteri very high up, and so made out the true nature of the case. He passed up, with great difficulty, a wire écraseur, and cut through a large portion, but it could not be extracted from the vagina till it had been sliced in several pieces. The case went on for several days pretty well, when tetanus came on, of which she died. This mishap he believed was unique after operations on fibroids, and the only one he had seen in forty years' practice. In referring to Dr. Barnes' remarks on his case, it was very true that in olden times many cases of polypi which were tied and left to slough off in the vagina, even under so experienced a practitioner as the late Dr. Robert Lee, died from septicæmia before the separation had occurred. But in those days no vaginal washings with antiseptics were carried out, specially with iodine. But in Dr. Barnes' case the tumour was removed, not left to putrify *in sitû*, and possibly vaginal washings had been employed. But Dr. Barnes had not stated that the torn perineum had been sewn up, a measure which should always be carried out, whether the perineum had been torn or cut. If this was not done, this

simple omission was probably the cause of death, the torn parts being very obnoxious to infection by septic vaginal discharges.

Dr. Aveling thought there could be little difference of opinion among the Fellows as to the propriety of incising the perineum when there was fear of laceration, whether from the passage of the fœtal head or a tumour; he would suggest, however, that it might be better to make the incisions laterally.

Dr. Wynn Williams remarked that implicit confidence could not be placed in Dr. Heywood Smith's écraseur, as in a case where he had to remove a very large fibroid tumour, whilst tightening the wire, the rivet on which the square button worked broke, and as he was many miles in the country he had to return to the town, where he found an ingenious watch-maker who fixed the button with rivets, in fact, made it into an ordinary écraseur. On the following day he removed the tumour, which was several pounds in weight, in four pieces, one after the other. If, therefore, any one desires to use Dr. Heywood Smith's instrument, he would recommend him to be supplied with another in case of accident.

Dr. Wiltshire thought the perineum should very rarely be torn or incised during the removal of large uterine fibroids. The growths might be so diminished by cutting portions away, either in wedge-shaped masses or otherwise, as to render injury to the perineum, as a rule, unnecessary. If incision were imperative he preferred the lateral incision. Tearing of the parts was undesirable. Comparison with the parturient perineum was hardly accurate, for during labour the parts were more dilatable. Much might be done by steady and patient traction combined with diminution of the fibroids.

The President had known great lacerations of the perineum to occur in removing fibroids, even through the sphincter. If great laceration was expected, he would prefer incision to avoid laceration; but if only a little laceration, as was usual, was expected, then he would prefer that the perineum should take its chance, thus probably securing the least amount of injury. He could not agree with the opinion expressed that incision would afford any appreciable degree of security against septicæmia, as compared with laceration. But, having had considerable experience in such cases, he did not recognise the inevitable character of laceration of considerable extent, and therefore he thought incisions would not be required. The tumour could be (and he had often done it) cut up by knife or scissors and removed piecemeal. Many proposals to this effect had been made, and especially that of the spiral cut, which he described, whereby the tumour was, by cutting, made into a long strip. This plan he had used with some degree of success.

Dr. Heywood Smith replied to the observations of Dr. Murray and Dr. Wiltshire, that in his case it would have been impos-

sible to remove the tumour without injury to the perineum, as the tumour had already distended and quite filled the vaginal cavity, and the vulval orifice was small; and he judged that a clean cut, if properly adjusted, would heal better than a torn wound, even if such had been brought together.

SPRING PESSARIES.

Dr. Beverley Cole showed an instrument designed to meet the indications of a large class of cases of retroversion and flexion, in which from exquisite sensibility, whether primary or secondary, the employment of ordinary pessaries is contraindicated or inadmissible.

It consists of a common Hodge or Smith's pessary, the upper arm of which is shorter than the original instrument, and at the same time less curved, so as merely to adapt it to the curve of the floor of the vagina.

To either lateral arm a segment of a watch spring, about one and half inch in length, is attached, these two

supporting at their distal extremity a bar of vulcanite or celluloid—this latter being intended to occupy the fornix of the vagina and uterus posteriorly. The advantage of the pessary so constructed is that the uterus instead of resting on a *fixed bar* is allowed to ride, so to speak, upon the spring, obviating the inconvenience of the older arrangement. A woman wearing this instrument finds great comfort. Whilst the womb is raised, or rather supported, when properly replaced, unlike other pessaries, in the act

of defecation the bar of the instrument is pushed forward by the accumulated excrementitial material above, and the latter thus escapes without trouble, whereas, in the ordinary Hodge and other pessaries the *bar* is caught by the descending mass and depressed, and carried backwards so as to increase the difficulty attending this act.

He also showed a "Spring Anteversion Pessary." Like the other, it is a common Hodge or Smith instrument to serve as a bed, and a spring attached to either lateral

arm or bar. But in this these strings run in the opposite direction, in other words, run forwards. They, however, support a bar which is designed to exert pressure upon the fundus of the organ (like all others) through the anterior wall of the vagina and the bladder. All who have had experience in the treatment of anteversion or flexions well know how sensitive the uterus is, and frequently irritability of the bladder is encountered, and how difficult it is to secure proper support through instruments because of this sensitiveness.

This pessary supports the womb and allows it to ride upon its upper bar, enabling the woman to engage in all usual occupations, even to dancing, without complaining of the pressure, or experiencing any discomfort.

He also showed an instrument, "Cole's Gas Cautery," designed for uterine, abdominal, and general surgical use. He considered it superior to the ordinary cautery iron, for it holds its heat when in contact with the tissues, and superior to "Pacquelin's Thermo-cautery," for it never fails to work, which so frequently occurs with the last-named instrument.

It consists of an air reservoir gas attachment which can be adjusted like a drop light to any ordinary gas-burner; a handle through which the gas and air are admitted, and the quantity of each regulated by a stop-cock on each tube; a joint just above the handle enabling the operator in using the speculum to keep his hand out of the field of vision; and, finally, a series of platinum points of various sizes and shapes, adapting it, as has been said, to every imaginable case of surgery.

The great features of the instrument are its simplicity of construction, and the fact—that it *never fails to work perfectly*.

THE LATE DR. McCLINTOCK.

THE PRESIDENT desired, before proceeding to the chief business of the evening, to remind the Society of the great loss it, the profession, and the public had sustained since their last meeting, in the death of Dr. McClintock. He knew that the deceased had great respect for the Society, and that the Society in return greatly respected and loved him. It had conferred upon him the distinction of Honorary Fellowship at the time of its foundation. He thought some Fellows might wish that more than ordinary notice should be taken of this sad and important event, and he would be glad to hear any motion on the subject.

Dr. BARNES said—It is a sad privilege of a Senior of the Society to interrupt the ordinary business to recall to them that death has removed a fellow-worker from amongst us. All will have heard with deep sorrow of the decease of Dr. Alfred McClintock, one of our first Honorary Fellows. The blow has been felt the more acutely because he was only lately amongst us presiding over the Obstetric Section of the International Medical Congress with all that grace

and ability for which he was distinguished. My friendship with him was of longer standing than that of most Fellows of the Society. It began when we were students together in Paris. I will not attempt to trace even briefly his career or his work. All are too fresh in our minds. I can only refer to the great qualities that stamped all he did. Candour, earnestness in search for truth, absolute trustworthiness in observation and record, never shone more brightly than in Alfred McClintock. These qualities endow his work with lasting value. No one in the present or in the future need hesitate to accept a scientific statement made by him. After this highest of all praise it is no detraction to say that his was not one of those intellects, inventive and energetic, that compel to scientific progress. He weighed new ideas with a steady and cautious judgment. If we follow the old precept to say nothing of the dead but what is good unless it be true, the epitaph upon McClintock will not be a brief one. But it may be summed up in the simple phrase: All that can be said of him is true, if good.

Dr. Barnes then moved the resolution—"That the Obstetrical Society of London, having learned with deep sorrow the death of Dr. Alfred H. McClintock, one of its Honorary Fellows, hereby records its sense of the heavy loss which this Society, his profession, and science sustains by that event, and respectfully expresses its heartfelt sympathy with his widow and family in the still greater loss which falls upon them."

Dr. Priestley did not know when he entered the room that a motion was to be brought before the Society in reference to the death of Dr. McClintock, but if no one was appointed to second the motion so well proposed by Dr. Barnes, he craved the privilege of doing so. He might say that he had enjoyed a long acquaintance with Dr. McClintock, and greatly esteemed his friendship. He was a most earnest worker in the field which he had chosen as his special province, and his lucid exposition of the subjects he studied and wrote upon indicated how

careful he was as an observer, and how independent he was as a thinker. His personal character was all that could endear him to his many friends, and the eminence of his scientific reputation was indicated by his being chosen to preside at the Obstetric Section of the International Medical Congress. Dr. Priestley had heard with profound concern of his untimely death, and he believed his regret would be shared by friends and colleagues everywhere, for he was esteemed and admired not only in England, Scotland and Ireland, but even in more distant regions, and he had never heard any opinion expressed about him except the highest and best.

Dr. Beverly Cole.—Mr. President, I rise with mixed emotions of surprise and grief created by the announcement just made through the motion of Dr. Barnes of the death of our highly esteemed friend and brother, Dr. McClintock of Dublin. Apart from the personal acquaintance I had with him, and the obligations incurred through many politenesses extended to me whilst he was presiding over the deliberations of the Obstetrical Section of the late "International Medical Congress;" as an American I feel constrained to express, on behalf of my countrymen, colleagues, and professional brethren, the deep sorrow they will feel at the loss of one whom they knew more particularly through his earnest and conscientious labours in the great field of science in which we are all engaged, whose character during life was so distinguished for professional zeal and integrity, and whose name now goes down to posterity full of honour. *Requiescat in Pace!*

ON SHORTNESS OF THE CORD AS A CAUSE OF OBSTRUCTION TO THE NATURAL PROGRESS OF LABOUR.

By J. Matthews Duncan, M.D., F.R.S. Ed.

Obstruction owing to shortness of the cord stands, among the causes of difficult labour, in a category by itself. It is not among those arising from a morbid condition of the powers of labour, though it may have influence in perverting uterine action. It is not among those arising from a morbid condition of the genital passage, although the insertion of the cord high in the uterine wall forms a virtual increase of its shortness. Nor is it among those arising from obstetrical morbid conditions of the fœtus, as ordinarily described. It arises from the morbidly early establishment of a solidarity of, or union between, the fœtus and the genital passage. The fœtus which should be propelled along the genital canal as freely as if it had no connection with it whatever more than what arises from contact, pressure, and friction, finds its progress arrested by a strong tether-like connection with the passage. As soon as the cord is taut obstruction commences, and abnormal mechanism of labour commences, for in a labour perfectly natural the cord is at no time more than taut, that is, tight without being stretched or elongated.

Cases belonging to this category have recently occurred in my practice, and I think it worth while to narrate some observations made in them and others similar, and some reflections on the subject.

The cord may be absent, the placenta forming the anterior abdominal wall. When present, it may be very short, measuring only a few inches, or it may be very long, measuring several feet. These extremes I need not attempt to state here, because they do not bear directly on

the causation of difficulty in labour, and because the subject is frequently discussed in obstetric writings. Neither shall I here make any reference to conditions of disease or malformation of the cord, which may render it easily torn, but shall suppose the presence of a cord of ordinary strength.

Although there is no difficulty in measuring a cord from navel to placental insertion, and thus stating its length when not on the stretch, it is impossible to make a quite exact statement of the length of any cord while proving itself a cause of difficult labour. For when from shortness it is obstructing the advance of the child, it is, after being taut, put on the stretch and may become considerably elongated. This stretching and elongation will vary according to the power applied, the time allowed, and according to the strength of the cord; and its limit is the breaking of the cord. But, in addition to stretching of the cord itself, some gain in length or distance from child to placenta is got by the drawing out of the two insertions, the navel and abdominal wall on the one hand, and the placenta and uterine wall on the other. Further, if the cord encircles the child in its course between its two insertions, length may be gained by tightness of compression of the encircled parts, as of the neck; and the same is true if the cord is, in a breech or footling case, morbidly shortened by passing between the thighs, the child riding on its cord, as it is called.

In twenty-four experiments which I, along with Dr. Turnbull, made in the Edinburgh Royal Maternity Hospital, we found that the power of the cord to resist a breaking strain, its ultimate tenacity, was on an average eight and a quarter pounds, the weakest cord requiring five and a half pounds, and the strongest fifteen pounds, to tear it across or break it. These experiments were made on lengths of cords attached to recently delivered placentæ, and the lengths so remaining attached were on an average nearly 17½ inches, the longest being 25 and the shortest 10 inches. The lengths were measured from

the placenta to the ligature attaching the weight to the cord. In fifteen experiments the stretching of 12 inches of cord was observed, and the elongation before breaking was nearly 2 inches. The greatest stretching was 3 inches, and the least 1¼ inch. No fall of the weight nor jerk was allowed, and the weights were applied and the experiment finished in about a minute, just as the power of labour is applied in an actual case of short cord.

In these experiments the cord after stretching did not break at the ligature connecting the weights with it in any case, and in only one case at the placental insertion. A further series of experiments was made, which showed that at or near the placental insertion the cord was stronger than in the course of its length, at least as far as near to the navel of the child.*

The power of the cord to obstruct labour by its shortness, whether that shortness is absolute or merely relative, is easily measured in its extreme limit, for it is just the strength of the cord to withstand a breaking strain, or the weight which, duly applied, breaks it. This weight does not constitute a measure of the power to resist a jerk or weight falling from a height, as in precipitate birth while the mother is standing, nor of the proof tenacity of the cord, that is, its extensibility without injury of the tissues composing it, but it gives the ultimate tenacity or tensile strength. The power to resist a jerk or weight falling from a height has been well discussed and measured by Pfannkuch. No one has, so far as I know, made attempts to measure the proof tenacity,

* "On the tearing of the cord" the valuable work of Pfannkuch should be consulted, in which many references will be found. ('Archiv für Gynækologie,' vii Band, 1875, S. 28.) My experiments were completed before the paper of Pfannkuch was published, and I have not had opportunity to make more with a view to exact comparison with his. The results of the two sets of experiments differ considerably and the subject needs further study. Especially do I want confirmation of the statement by Pfannkuch that the cord may be stretched to half its original length.

though many have discussed some of its conditions. But both of these measures are not of any importance in the inquiry now before us. In the cases under consideration the cord is put on the stretch, and kept under moderate tension, till at last it is ruptured by the rapid yet not sudden or jerk-like application of the whole powers of labour. The propelling resultant of all the powers of labour is of course greater than the ultimate tenacity or tensile strength of the cord when it is sufficient to break it asunder; and this breaking force comes thus to be a means of helping to fix the higher limit of the propelling power of labour. In cases in which the cord is broken the propelling power is greater than the tensile strength of the cord.

The mere measurement of the length of the cord from its umbilical to its placental end is far from a sufficient statement of its shortness as a cause of difficult labour; for, as we shall immediately point out, a very long cord may, by rolling around the neck, be relatively a very short one and a cause of difficulty in labour. The cord, as a cause of difficulty, is to be measured as a length of rope between two attachments, the fœtal and placental; and both of these attachments may be practically so varied as to make the same length of cord a serious obstruction in one case and no obstruction at all in another.

The cord as a cause of difficulty will be practically shorter according as its placental insertion is higher in the uterine cavity; for when the child is passing through the vulva the distance between the fœtal attachment of the cord and the lower parts of the uterine body is less than between the fœtal attachment and the higher parts of the uterine body.

The fœtal attachment, or end for measurement, must always be the umbilicus in cases of absolutely short cord, when its whole length is only a few inches. But absolutely very short cords are very rare, and shortness of the cord as a cause of obstruction is not very rare. A cord of any length may be made relatively short by being

rolled around the fœtus. The neck is the part most frequently encircled, and it is this mode of abbreviation alone that I shall consider, for it is the most frequent source of difficulty from shortness, and, as already said, the shortness is not absolute but relative. In this case the available length is measured from the placental insertion, not to the umbilicus, but to the neck of the fœtus. And it is to be remarked that the same length of cord measured from the neck will give the fœtus less range than when measured from the umbilicus. In other words, the same length of cord considered as a cause of difficult labour is a greater obstacle when attached to the neck than when attached to the umbilicus. The attachment to the neck, or measurement from the neck, makes it practically shorter, because the neck is a distance of about two inches in advance of the umbilicus. The neck attachment will bring the same length of cord into a taut condition sooner than the umbilical attachment. The distance between the two attachments is not to be measured by the distance found when the fœtus lies on its back extended, for in labour it has its body flexed and the two attachments approximated to each other.

With the commencement of the premonitory stage of labour, or of the opening of the internal os uteri, there commences permanent shortening or retraction of the proper uterine wall or wall of the body of the uterus, and advance of the ovum, including the fœtus, commences. During this stage the ovum and fœtus may not advance relatively to the pelvis, but it advances in the uterus till the cervix is expanded, and this expanded cervix the fœtal head generally occupies before the commencement of the first stage, the external os uteri being as yet not dilated. No one has ever suspected shortness of the cord as a cause of difficulty in this premonitory stage; yet it is quite conceivable that it may be so, if it were extremely short. If there is no cord, as in certain monsters where the placenta forms the anterior abdominal wall, then morbid conditions, the result of the advance of the fœtus, will probably arise

even in this premonitory stage of labour or stage before the first. We have not reliable accounts of very short cords, and Crosse* discredits Davis's report of a cord two inches in length. But with a cord of even two or three inches in length I do not think disorder of mechanism would arise, for the increase of distance between the two insertions probably does not exceed two inches in this stage; and the retraction of the body of the uterus approximating the uterine insertion of the cord to its fœtal insertion compensates nearly if not entirely for the slight advance of the fœtal insertion in this stage. During all the progress of the fœtus through the genital canal the uterine insertion of the cord is also progressing, and in this premonitory stage we can be pretty sure that the advance of the uterine insertion compensates the advance of the fœtal insertion.

If now we consider the progress of the first stage or the gradual opening up, on to full dilatation, of the external os uteri, we experience no hesitation in applying to it the remarks made on the mechanism of the premonitory stage.

To the second stage also similar statements apply, except in rarest degrees of shortness, so long as no part of the fœtus is born; and, so far as I know, theory is here not in disagreement with experience; but when the head of the child is born and bearing-down efforts assume the chief place in effecting further advance, the placenta being still attached, then advance of the fœtal end of the cord must be much greater than of the placental end, and the short cord will be put on the stretch.

Stretching of the cord may supply sufficient length for the natural birth of the child. If it does not, then the cord may snap across, or the placental end may be freed by separation of the placenta, or the placental end may be, along with the uterus, pulled down, inversion taking place, or a kind of evolution of the fœtus may occur.

When the cord is not strong enough to invert the uterus

* 'On Inversio Uteri,' part 2, p. 131.

or separate the placenta, or to afford a fixed point for the process of evolution, then it may snap across, and this solution of the difficult problem has been occasionally observed in practice. Indeed, as in Canolle's case, mentioned by Crosse, inversion of the uterus and breaking of the cord may occur in the same case.

We may be permitted to guess that premature separation of the placenta forms an occasional solution of the difficulty arising from shortness of the cord. This termination has not been described, for it would not only not attract attention, unless in the very rare cases of excessive brevity, but, even if looked for, could not be, so far as I can see, shown to be the mechanism of delivery in any case, except, again, when the cord was extremely short and brought the placenta out with the fœtus. It is not difficult to comprehend this separation if the cord happens to be attached at or near to the upper edge of the placenta; and it is easy to imagine such separation permitting the easy birth of a living child without the occurrence of such scarcely premature separation being noticed or suspected.

Breaking of the cord is an easily understood termination of a case. A force of about eight pounds is sufficient to do this. Many interesting questions arise in connection with this rupture, which accumulated experience and observation can alone solve. Before the cord is broken the placenta may be partially separated, or the uterus partially or completely inverted, or evolution of the fœtus may have been partly effected. I have not seen a case of the kind. Baudelocque relates a case of rupture of the cord in which it measured eight inches.

Several cases of inversion of the uterus as a mode of termination of shortness of the cord are recorded. I have not seen one, and I shall satisfy myself with referring to those mentioned in Crosse's great essay on inversion of the uterus, in connection with which Crosse exhibits great acuteness in pointing out several of the explanations given in this paper. Baudelocque gives a case in which the cord measured seven inches. In Newnham's case it

measured ten inches. In Smith's case six inches. These are cases of absolute shortness. Baudelocque relates a case in which the shortness was relative, the cord encircling the neck twice, a leg three times, and an arm once. It is easy to suggest a mechanism of this inversion, for the traction on the cord, continuing in the absence of uterine contraction, may partially invert the placental uterine site and may induce irregular or imperfect action of that part. The next, recurring, pain seizes the protuberant partial inversion and completes the morbid process. Without a careful study of the mechanism of inversion one might suppose it to be easily produced and likely to occur in this way, which it certainly is not. This is not the proper place to expatiate on the matter, and I shall only recall to mind the experiment of Keiller who found it impossible, in a case just dead from post-partum hæmorrhage at the full time, to produce inversion by seizing with his hand the placental site and pulling with all the power he could make available.

The most common termination in cases of shortness of the cord is, no doubt, by the fœtus performing an evolution which may be called spontaneous. This evolution I have several times watched when completely performed. It may be more or less perfectly completed, according to the degree of morbid shortening of the cord. Every practitioner meets with cases of cord encircling the neck and arresting the natural progress of the fœtus after the shoulders are born. It is only the more marked cases, where obstruction is observed as soon as the child's head is born that strike him and attract attention. When the cord is extremely abbreviated, whether absolutely or relatively, so that birth by the process of evolution cannot occur, then, as in the cases referred to, the cord breaks or the uterus becomes inverted, or the placenta is separated. But cords of 10 inches and under are extremely rare; and it is probable that in most cases where the cord has even 10 inches from navel to placenta, birth by spontaneous evolution will occur. On the other hand, a cord of any length may be relatively shortened to

a morbid degree by encircling the fœtal parts, and may cause obstruction. In a case which I watched lately, where obstruction was sufficient to necessitate the evolution of the fœtus, the cord measured 23½ inches. It twice encircled the neck of the child, and the distance between the neck and the placenta was 11 inches. If we allow 2 inches as the distance between the neck and the umbilicus, there was a shortness equal to 9 inches, measured as absolute length from navel to placenta. In a closely similar case I measured the cord 27½ inches in length, but I did not get a good measurement from the neck. In this case obstruction did not occur till after the head and shoulders were born.

In cases of great absolute shortness the process of evolution will not be completed if the cord is artificially divided by the accoucheur; and in cases of relative shortness it will generally not be even commenced if the usual good practice in such cases is adopted. This practice consists in feeling for the cord in the hollow of the neck as soon as the head is born, seizing it, and pulling to get a slack sufficient to let it be passed over the head, and thus to remove the encircling. When sufficient slack cannot be easily got to allow the cord to be passed over the head, there may yet be enough to allow the shoulders to pass through the loop, and thus obstruction by relative shortness may be obviated. The process of evolution in a case of relative shortness is seen when neither of these plans has been adopted, or when the progress of the child under powerful labour is so rapid as to give no time for the treatment.

During the evolution the fœtus rotates so as to bring its anterior surface to look forwards. This rotation is in a direction such as to partially undo the encircling and thus diminish the strain on the cord, and the strain on the cord is the cause which produces it. This part of the evolution may be artificially performed in order to aid delivery.

The evolution itself has analogy with other evolutions

observed in morbid labours. As, for example, in the spontaneous evolution of Douglas, one or other pubic bone forms a fixed point for the revolving fœtus, so here the fœtal end of the available length of cord, whether it be navel or neck, forms the fixed point. As in the spontaneous evolution of Douglas the body revolves around the pubic bone, so here it revolves around the fœtal end of the cord. In the spontaneous evolution of Douglas the process is performed partly in the abdominal and partly in the true pelvis, so here the process is performed partly outside the mother's body partly in the true pelvis.

The cord is first made taut, and as it becomes stretched it lies in close apposition to the urethra, forming the shortest possible line between its placental and fœtal ends. The fœtal end is kept as near as may be to the orifice of the urethra, and while it is so the unborn parts of the fœtal body are forced down through the lower part of the genital passage, the upper parts of the fœtal body being pressed towards the mons veneris.

The following conclusions may be stated:

1. A cord of any length may be rendered morbidly short by being rolled around the parts of the fœtus.

2. A cord morbidly short in a lesser degree does not prevent the progress of labour, the child being born by a process of evolution, more or less complete and difficult in proportion to the shortness of the cord.

3. A cord morbidly short in a higher degree arrests the progress of the labour until the placenta is separated, the cord torn asunder (or cut), or the uterus inverted.

4. No nearly exact statement can be made of the number of inches constituting the lesser or the higher degree of morbid shortening of the cord, because of the varied amount of stretching of the cord, and because of the varied insertion of the ends of the part to be measured.

5. A cord of the lesser degree of shortness probably varies from 12 to 14 inches when stretched and elongated, if measured to the neck of the child, and from 10 to 12 inches when stretched, if measured to the umbilicus.

6. A cord of the higher degree of shortness measures probably under 10 inches when on the greatest stretch.

Dr. J. Braxton Hicks thought that it was the general plan with obstetricians, in the case of a very short funis, either directly short or shortened by being coiled round the part of the child, if it impeded the exit of the child or strained it so that its circulation was impeded, to divide it as best we might, without attempting to tie either end, as the fœtal portion can be easily seized while the child is being expelled or drawn down. Dr. Hicks described a remarkable case he had seen, as follows:

TWINS: SHORT FUNIS IN BOTH.

By J. Braxton Hicks, M.D. Lond., F.R.S.,
OBSTETRIC PHYSICIAN AT GUY'S HOSPITAL, ETC.

(In Consultation with Dr. Goss.)

Mrs. —, Union Street, Trinity Square. In her supposed eighth month of pregnancy—very large and cumbersome—was delivered of her *first* fœtus at 11 a.m. Liquor amnii very copious, whereby the presentation was first the arm, but afterwards the feet came down. The funis was exceedingly short, so that it could be scarcely tied and divided.

The second amnial sac was very full and broke shortly after birth of first child. Upon this the uterus became quiet, and so continued till 9 p.m., when, slight action beginning, the presentation was found to be the feet. I gently drew down till the breech was at os uteri. I left, recommending a dose of secale if the uterus remained inactive; in about three-quarters of an hour it was given, and the pains came on, pushing down the breech to the vulva, where it remained for some time. I again was sent for, and found no obstruction below, *i.e.* in the pelvic cavity, therefore the detention was higher. The patient was placed under chloroform, and I passed my hand upwards. I found the child œdematous, and to reduce its

size, and also to assist in the traction, I hooked the crochet into its abdomen. Some fluid escaped, which allowed more freedom of action. I now could feel the funis very tense, the umbilicus being stretched up. It was above the symphysis pubis.

I determined to divide the funis, and having in my bag the osteotome of the late Sir James Simpson, I guided it up between two fingers of one hand, and divided it. Upon using fair traction the body came down. The funis was about four inches long altogether. The placenta (single) was not spontaneously expelled. I have no note as to its position, but am under the impression it was at front of uterus. However, I had an opportunity of observing a rare cause for concealed post-partum hæmorrhage, first noticed by Dr. Blundell. A bag of the membranes protruded from the os, the uterus being in fair action. On rupturing this a large rush of blood took place. I instantly passed my hand within, and peeling off the placenta so much as was adherent, removed it in the usual way, whereupon the bleeding ceased.

Dr. Barnes observed that several points in the paper had arrested his attention. He was rather surprised to hear Dr. Duncan describes the cord as sometimes springing from the edge of the placenta farthest from the os uteri internum. Levret had long ago pointed out that the cord, if it sprang from an edge, always sprang from that nearest to the os. He had himself in his researches on placenta prævia constantly verified this conclusion. It was a thing easily determined. He believed there was a physiological reason for it. Without, however, absolutely denying that the cord might spring from the farthest edge, he would put it interrogatively: Where is the evidence that it does? The remarks upon the encircling of the neck of the cord as a cause of spontaneous evolution were interesting. He would submit, as a means of lessening the tension of the cord artificially shortened, the method of compressing the uterus downwards during the second stage. This would give an inch or more by approximating the placental attachment to the fœtal end of the cord. And instead of losing time, not always at disposal, in slipping the loop over the child's head, or opening the loop to let the shoulders pass through, a manœuvre not always possible, he had found it better to cut the cord at once. This entailed no

danger to mother or child, and permitted the rapid extrication of the child from the danger of strangling.

Dr. HICKINBOTHAM remarked upon the diagnosis of cases of obstructed labour from short funis, and related a case he had seen the previous day, in which the condition was recognised by the fact that with a roomy pelvis, sufficient pains, and a fœtal head easily movable in the intervals, yet no progress was made. He advocated immediate forceps delivery and the prompt division of the cord.

Dr. GERVIS called attention to the advisability in cases in which the forceps were used, of ascertaining as soon as practicable whether or no the cord encircled the neck. He had met with cases in which, necessarily, the forceps were put on before the head was low enough for this point to be noted, and in which the cord around the neck proved both an obstacle to delivery and a source of danger to the child.

Dr. WYNN WILLIAMS said he rose to point out a danger, not alluded to by the author of the paper, which occasionally happened from the shortening of the umbilical cord. The danger, however, was not to the mother but to the child. He alluded to the rupture of the cord at its junction with the child. He knew of two cases, one in his own practice, where such an incident occurred. Just as he entered the room the child was violently expelled, breaking the cord at its insertion into the abdomen of the child, the vessels being drawn almost within the abdomen; fortunately he had a tenaculum in his pocket, and succeding in hooking out the vessels and placing a ligature upon them.

Dr. ROBERTSON desired to record a case of rupture of the cord which occurred in his practice some time ago. The patient was confined of her third child, which was born five minutes before his arrival. He found the cord of average length and thickness, but severed about five or six inches from the umbilicus. Hæmorrhage from the cord had ceased and the child did well.

Dr. MURRAY wished to remark on what had fallen from Dr. Barnes touching the pressing of the fundus uteri from above, and so assisting delivery. He remembered a consultation case, where after the use of the forceps pressure was made, and in so doing the rotundity of the uterus gradually got less and less, when, on feeling for the placenta, the first stage of inversion of the uterus was detected; the placenta was easily removed, and the fundus uteri re-adjusted.

Dr. BRUNTON said that it had been stated, as a sign of shortness of the cord, that, if the placental attachment is at the usual place, with every pain there is a depression of the fundus uteri to be seen and felt, such depression gradually disappearing as the pain goes off, and the rounded form being restored in the interval of rest.

Dr. HAYES inquired whether in the experiments made by Dr.

Duncan to test the tensile strength of the cord, any note had been taken of the thickness, number, and condition of the vessels of the different cords? In his own practice he had never met with inversion of the uterus as the result of pulling upon the cord, or attributable to an unusual shortening of the cord. Dr. Duncan had also remarked that he had never met with a case of inversion with short cord. Breaking of the cord from pulling was very common. Dr. Hayes therefore could not help thinking that where inversion had occurred with an abnormally short cord, some other factor—perhaps thickness, condition of vessels—besides mere shortness, had had something to do with the production of the accident.

Dr. EDIS thought that, in some instances where the cord was twisted several times round the neck thus delaying delivery and forceps were employed, as soon as traction was exerted the undue strain upon the cord interfered with the fœtal circulation, giving rise to convulsive movements on the part of the fœtus. Prolapse of the cord by the side of the head would be still more likely to cause such a result. He had witnessed such cases, the child being apparently stillborn and resuscitated with difficulty if the delivery were delayed.

The PRESIDENT found the valued criticisms on his paper had reference chiefly to practice, and to this he had no positive objection; but the paper was written with a view mainly to the description of mechanism. He thought Dr. Hayes would find that variations of thickness of the cord made little variation in its tensile strength; the matter was one that could easily be settled by experiment and in no other way. He hoped that the rare case of Dr. Murray and the unique and most valuable case of Dr. Braxton Hicks would be well recorded in the reports of their speeches. With Dr. Barnes he concurred in supposing that the cord was, in battledore placenta, at least generally, inserted in the lower border; but it was only supposition, and he knew no physiological reason why it should not be inserted in the upper border.

DECEMBER 7TH, 1881.

J. MATTHEWS DUNCAN, M.D., F.R.S. Ed., President, in the Chair.

Present—66 Fellows and 8 visitors.

Books were presented by Dr. Fancourt Barnes, Mr. George Eastes, Dr. W. T. Lusk, Prof. F. Macari, Drs. A. Meadows and A. J. Venn, the Royal Medical and Chirurgical Society, the Clinical Society, the Edinburgh Obstetrical Society, and the Editor of the 'Beiträge zur Geburtshülfe' ('Festgabe,' zu Prof. Credé).

F. Perley Taylor (of Prince Edward Island) was declared admitted a Fellow of the Society, and Dr. C. S. De Lacy Lacy and Dr. Arthur Perigal were admitted Fellows.

The following were proposed for election:—George John Eady, M.R.C.P. Ed. (Caterham); Joseph Farrar, L.R.C.P. Ed. (Morecambe); Francis Boynton Lee, F.R.C.P. Ed. (Heckmondwike); John Edward Norman, M.R.C.S. (Esh, Durham); William Peacey, M.B.; John Phillips, B.A., M.B.; Amand J. M. Routh, M.R.C.S.; William Francis Sheard, L.R.C.P. Ed. (Ridney); Stephen Maberly Smith, M.R.C.S. (Geelong, Melbourne); and George Snell, M.R.C.S. (Berbice).

Dr. John Brunton, Dr. Easton, and Mr. G. R. Ord, were nominated auditors of the year's accounts.

OVARIAN TUMOUR.

Mr. Knowsley Thornton showed a portion of an ovarian tumour with the Fallopian tube adherent by its fimbriated extremity to the opposite ovary, which was so completely grasped that it had partly atrophied.

He said: This remarkable specimen is part of a tumour of the right ovary, with the right Fallopian tube, into the fimbriated extremity of which the left ovary has passed and become fixed by inflammatory adhesion of the fimbriæ all round it. It demonstrates perfectly an occurrence which I have been led to suspect by a series of cases in which both ovaries have been found to be involved in one tumour, the respective tubes and ligaments forming two distinct pedicles.

I have now operated on several cases of this kind, and in the first case, from a dissection of the tumour, was led to suspect that the double pedicle arose from the condition which the present specimen demonstrates. The last case of the kind that I operated upon showed the condition very fairly, as the secondarily involved ovary had not at the time of operation become included in the mass, but was still distinctly recognisable. In this preparation the two tubes are quite distinct, but the left tube, at its free extremity, has, together with the left ovary, been partly swallowed by the right tube, the fimbriæ of the latter having then closely adhered all round, and the ovary is now in a partly cystic and partly atrophic condition.

It appears to me that the probable explanation of the condition in this case is as follows:—The right ovary, becoming cystic, stretched and elongated its tube; the tube, by the direction of the growth of the cyst, was carried into contact with the opposite ovary, and its fimbriæ falling over this left ovary, just as they would in health over their own ovary, became adherent, through some irritation or local peritonitis, common enough in the

growth of every pelvic tumour. If the inflammatory action be extensive, the grasped ovary may atrophy and disappear as the newly-formed tissue contracts round it, or it may become involved in the mass of a rapidly-growing tumour and so disappear. I feel certain that I have seen specimens of both conditions.

The patient from whom this tumour was removed was forty-three years old and single. She had been quite regular up to her fortieth birthday, and was menstruating regularly at that date, when she caught cold and the period stopped suddenly, and she never menstruated again. She had not at that time noticed any increase of size, but had been troubled with a beating in the right iliac region, and this was accentuated at the time the menstruation was checked, and she had some slight pelvic pain, but never anything sufficient to lay her up at all. This history coincides well with the condition found at the time of operation, for there had evidently been no extensive inflammation in the pelvis.

TRANSLUCENT SAC.

Dr. Herman showed microscopic preparations from a specimen he had exhibited at the October meeting. (The specimen was a translucent sac containing clear fluid, and a small solid body attached to its wall.) Dr. Herman had submitted the specimen to his colleague, Mr. McCarthy, who had been good enough to examine it microscopically, and to allow the preparations to be exhibited. One slide showed the membranous wall of the sac. It consisted of fine rudimentary fibrous tissue, and was sheathed with epithelial cells, such as are seen in unquestionable amnion. The other showed a section of the solid body. This body was about a line in length and three quarters of a

She has always previously had good confinements, but felt ill the whole of this pregnancy, which dated from April 14th, 1881. When taken in labour, prematurely, the midwife was sent for. The first stage lasted three hours. The face presented in the third position, the forehead being directed to the right sacro-iliac synchondrosis. The second stage lasted six hours, and would have gone on indefinitely had not the midwife sent for assistance.

Forceps were applied, and delivery took place in the following order :—The first head being born, a monster was diagnosed, and the other head felt over the pubes.* Traction was made, and the shoulders, arms, and trunk of No. 1 were brought down; these were followed by the four feet simultaneously, and the rest of No. 2 as a foot-

* See sketch.

ling, the pubic bones forming an axis round which evolution took place.

The children (both female) were stillborn, measured fourteen inches, and weighed five pounds. The mother made a good recovery. There was a single placenta and but one cord.

It would seem something more than a coincidence that the last seven cases of conjoined twins were all girls.

Dr. WILTSHIRE inquired if the relations of the fœtal envelopes threw any light on the question whether a double-yelked ovum had existed in this case?

FIBROMA OF THE UTERUS.

DR. HEYWOOD SMITH exhibited a tumour removed from a patient, æt. 55, married thirty-one years, whose only pregnancy resulted in abortion twenty-nine years ago. Sir James Simpson had seen her more than twenty years previously, and had diagnosed fibrous tumour of the uterus. Recently a cyst had developed, and Dr. Heywood Smith diagnosed ovarian cyst, and also came to the conclusion that the solid tumour was a fibroid of the ovary. At the operation it was found that the cyst was an offshoot from the solid tumour, and the whole tumour was removed, the pedicle being very short, close to the right cornu of the uterus, and so hard that the needle was passed with considerable difficulty. The patient recovered. Before the operation the patient had suffered from several severe floodings, and since the operation there had been considerable metrorrhagia. Dr. Gabbett, the pathologist at the Hospital for Women had made a careful examination of the tumour and found it to consist wholly of dense fibrous tissue, with several rounded tuberosities and thin-walled cysts on its surface. There was no trace

of the stroma of the ovary, and nothing to distinguish it from a fibroma of the uterus.

Mr. Alban Doran did not understand why pathologists were so reluctant to recognise fibro-myoma as possible in the ovary. The ovarian stroma, around the follicles, the vestigial epithelial elements, and the thick-walled vessels contained an abundance of cells with long nuclei, closely resembling the plain muscular fibre of uterine tissue and of fibro-myomatous tumours. The ovarian ligament was normally pure non-striated muscular tissue. Mr. Doran had seen several examples of large and of small fibro-myomata which absolutely occupied the seat of the ovary, and did not extend beyond the limits of that organ. The distinctness of these tumours from the uterus was particularly evident, not only through the position of the Fallopian tube, but also owing to the great hypertrophy of the ovarian ligament, which increased the distance of the diseased ovary from the uterus. This law of hypertrophy of appendages of organs invaded by tumour applied to the hydatid of Morgagni in most forms of ovarian and tubal disease; in one case of multilocular tumour of the ovary, removed the day before by Mr. Thornton, the hydatid measured four inches in length, its pedicle being enormously elongated. All the ovarian fibro-myomata referred to contained cysts.

FALLOPIAN-TUBE PREGNANCY.

The President showed a right Fallopian-tube pregnancy. The laceration is very long, measuring one and a half inch. The patient consulted Mrs. Falconer, at the Stirling Infirmary, thinking herself four months pregnant; the fœtus is of about five weeks only. She complained of weakness and pain in belly. She had syphilitic psoriasis, was anæmic, and had been losing blood repeatedly per rectum. She died in thirty-six hours. The abdomen contained large masses of clotted blood.

EPITHELIOMA OF CERVIX WITH PREGNANCY.

Dr. Edis asked for an expression of opinion in the following case:—A patient, æt. 29, married two years and nine months, mother of one child, eighteen months old, which she suckled for twelve months, presented herself in the out-patient department of the Middlesex Hospital in November complaining of pain in the back, sanguineous discharge, alternating with a thick, yellow, offensive discharge, and other symptoms. On examination she was found to be about six months pregnant; the whole of the cervix uteri, and the posterior wall of the vagina, down to within one inch and a half of the perineum, was affected with epithelioma. The cervix was dense, nodulated, rough, and friable, but did not bleed as readily upon touch as usually noticed. She was admitted under the care of Mr. Hy. Morris with a view to operation. On careful examination the posterior wall of the vagina was found to be too much involved to admit of the whole of the diseased mass being removed by the Porro-Freund operation. The question to be decided therefore was whether premature labour should be induced now, so as to lessen the risk of injury to the cervix during parturition—the child being to all intents and purposes now viable—or whether the pregnancy should be allowed to go on nearly, or quite, to full term, and then Cæsarian section be performed, so as to give the child a chance of living, without increasing appreciably the maternal risks?

Dr. Wiltshire felt it difficult to express an opinion without seeing the case; but he thought that if the disease had extended down the posterior vaginal wall nearly as far as the perineum, the valuable operation of Porro would fail in completely removing the disease. He mentioned a case of excessively dense cancer of the cervix uteri which he had seen some years ago in consultation, and for which he performed Cæsarian section. Here Porro's operation would have been admissible had it been then in vogue, as the disease was chiefly in the cervix.

Dr. HERMAN said that published cases of pregnancy with cancer of the cervix uteri showed that the difficulty of delivery depended more upon the consistence of the growth than upon its extent. Cases had been reported in which, although the whole circumference of the cervix uteri and upper part of vagina was cancerous, yet living children had been born after quick and easy labours, and, conversely, a cancer of small extent might, if very hard, cause great obstruction to delivery.

Dr. PRIESTLEY said he thought the remarks of Dr. Herman really went to the root of the question. The propriety of any procedure must be determined by the extent of the morbid growth and by its consistence. It was well known that some of the forms of epithelioma were so soft and friable that they broke down and almost melted away in attempts to remove them. A growth of such a soft character might occupy a considerable extent of surface and yet readily give way during the progress of labour at the full time. He did not think the case a suitable one for Porro's operation now, as at the sixth month of pregnancy the fœtus would not be viable, and the mother's life could scarcely be prolonged by such operation. Seeing that the woman's life could under no circumstances be much prolonged, suffering as she was from malignant or pseudo-malignant disease, he thought the preservation of the child's life should be the chief object aimed at, and he should be disposed to let the woman go the full time, or nearly so, and then be guided by the amount of obstruction in the vagina in judging whether it was better to attempt to deliver by the natural passages or to perform Cæsarian section.

ON THE NORMAL AND PATHOLOGICAL ANATOMY OF THE GANGLION CERVICALE UTERI.

By N. W. JASTREBOFF,

ASSISTANT-PHYSICIAN AT THE OBSTERICO-GYNECOLOGICAL CLINIC OF PROFESSOR SLAWJANSKY, AT THE MEDICO-CHIRURGICAL ACADEMY OF ST. PETERSBURG.

(Communicated by the PRESIDENT.)

THE pathology of the nervous system of the female genital organs has as yet been made the subject of almost no scientific work. But we know well enough that it plays a great part in the diseases of these organs from researches on the pathological changes of the nervous system of other diseased organs. For instance, Jwanowsky* has shown parenchymatous changes in the nerve centres of the heart in spotted typhus, whereby he explains the paralysis of the organ in the early stage. Putjatin† also found in chronic diseases of the heart interstitial morbid processes in its nervous ganglia, with consequent fatty degeneration and pigment infiltration, which had as a consequence functional disturbance or even paralysis of the organ. Rosonow, Zolltmann, Eichorst, and Wassilieff,‡ showed further that, after cutting through the vagus, not only functional disturbance of the organ came on, but that also anatomical changes took place in its muscular structures.

From this short review it is to be remarked that likewise pathological processes in the nerves of the genital organs may induce not only functional disturbances in

* Jwanowsky, "Zur Path. Anat. des Flecktyphus," 'Journal für norm. u. path. Histol. u. klinische Med. Herausgegeben,' von M. M. Rudneff. 1876 (Russian).

† Putjatin, 'Ueber die path. Veränderungen in den anatom. Ganglien-centren des Herzens bei chron. Erkrankungen desselben.' Dissert, 1877 (Russian).

‡ Wassiljeff, 'Ueber die trophische Wirkung des Vagus auf den Herzmuskel.' Dissert, 1879 (Russian).

them, but also anatomical changes. But that the pathological department is so little cleared up is well explained by the great blanks which still exist in the ordinary anatomy of this part of the nervous system. Having been asked by Professor Slawjansky to occupy myself with the anatomy of the nervous system of the female genital organs, I chose for my present work the cervical ganglion of the uterus in its normal and pathological conditions, and here publish the results I have arrived at.

Having regard to the literature of the subject, we find it given up to 1867 in Frankenhæuser's comprehensive work, 'Die Nerven der Gebärmutter.' But Lee's views appear to us to be not fairly stated by Frankenhæuser. For instance, he represents Lee as describing at the neck of the womb one great, and several small ganglia, from which nerves proceed into it. When we compare this statement with the original, we find that Lee describes one great ganglion at the neck of the womb, from which nerves run into the organ, and he describes the smaller ganglia as placed in the middle of the vagina, and from them nerves arise and proceed into the vaginal walls and subdivide there. Although these ganglia are connected with the utero-cervical ganglion of Lee, or the cervical ganglion of Frankenhæuser, they have no direct connection with the nerves of the uterus. The ganglion itself he describes as a white, solid, undivided mass of tissue of irregular triangular form, with projections at those places where nerves either enter or depart, and it supplies the posterior border of the lateral part of the vaginal laquear, the side wall of Douglas's space, and the anterior part of the rectum. In its mass are found one, two, or three openings for vessels. The ganglionic mass surrounding these openings is, however, so great that the ganglion has never a net-like appearance.

On the histological structure of the ganglion Frankenhæuser remarks: "The ganglion consists of ganglionic cells placed close to one another, which are separated by nerves." These words contain a contradiction regard-

ing the structure of the mass of the cervical ganglion, for at one place he says, founding on macroscopic observation, that the mass is indivisible, and adds further on, founding on microscopical observation, that it consists of ganglia and nerves. Again, he describes the mass in its entirety as a ganglion, which is in discordance with the statement that it consists of ganglia and nerves, and is therefore a complex structure. These contradictions are inexplicable. After Frankenhæuser, we find in literature very little that has reference to the ganglion in the neighbourhood of the neck of the womb, or of the vagina, and no special researches.

Henle,* describing the utero-vaginal plexus, says that larger and smaller ganglia are found at the neck of the womb and upper part of vagina, in greater number at the sides and in less number on the anterior and posterior surfaces.

Sappey† only remarks that ganglia are observed in the course of the uterine nerves, which have already been described by Remak in 1840, by Polle and Koch in 1865, and by Frankenhæuser in 1867.

If we lay aside particulars, we find the statements of different authors regarding these ganglia divided into two groups :

1. Authors who recognise a ganglion at the side of the neck of the womb or of the vagina—Walter, Lee, and Frankenhæuser.

2. Authors who, instead of a ganglion, recognise an extensive nervous plexus with greater and larger ganglia, and who admit no ganglion at the side of the cervix uteri or of the vagina—Tiedemann, Moreau, Remak, Jobert de Lamballe, Snow-Beck, Kilian, Boulard, Herschfeld, Körner, Luschka, Polle, Henle, and Sappey.

It has now to be asked—How are these contradictions to be explained ? This is partly done by the difficulty of making preparations of the sympathetic nervous system

* 'Handbuch der Nervenlehre des Menschen.' 1871, s. 591.

† 'Traité d'Anatomie descriptive,' tome iii. Paris, 1877.

in general, and quite particularly of the nerves of the genital organs, which are so firm and so close one to another. On the other hand, the mode of preparation is of importance, and it differs in some respects from that generally used.

It is, however, in the highest degree interesting to settle the questions: 1. Is there a ganglion at the neck of the womb or in the vagina? 2. Is this structure simple or complex ?, that is, does it consist macroscopically and microscopically of separate ganglia?

We have set ourselves to solve these questions by anatomical research. As material we used thirty bodies of different ages, but most of childhood. Here I give briefly the results arrived at, without stating fully the methods of preparation and of investigation.

By the ordinary method of preparation we find at the union of the twigs from the hypogastric plexus with the twigs from the sacral nerves many small ganglionic swellings of different forms. By comparing different preparations, the difference of form of these swellings and in their number was evident in every preparation. As we could not admit the possibility of so great differences in number and form of the ganglia, we were inclined to refer it to the method of preparation, and sought by that means to explain the above-named variations of statements of authors.

Making preparations with pyroligneous acid or common vinegar, after they had lain in spirit, we found at the union of the hypogastric plexus with the twigs of the sacral nerves a solid mass which resembled a nerve ganglion, and which was eight millimètres long and three broad; that is, we had the so-called ganglion of the cervix uteri of Frankenhæuser. After preparing it with osmic acid, we found it, by microscopical examination, to consist of many small ganglia. The interstices between the ganglia were filled up by loose cellular tissue, fat, and vessels of different sizes, and nerve branches. Now, by a nerve ganglion we understand a group of nerve-cells

which is surrounded by perigangliouic connective-tissue, and is divided by nerve fibres and layers of endoganglionic connective tissue. So far as concerns the structure of peri- and endoganglionic connective tissue, we agree, founding on our own investigations, with Axel, Key, and Retzius. Making dissections from the bodies of newly-born children, after treating with acids in the fresh condition, that is, without putting them in spirit, we could under water, with addition of spirit, convince ourselves even macroscopically, or with the help of a Brucke lens, that the cervical ganglion of Frankenhæuser consisted of many ganglia, which formed two groups. The posterior-inferior group is at the point of union of the sacral nerve twigs with the twigs of the hypogastric plexus; the upper anterior group at the point of union of some sacral nerve twigs, which proceed outwards and forwards from the first group, with the anterior twigs of the hypogastric plexus and with twigs which come from the ganglia of the first group. From the first group proceed branches to the rectum, to the vagina, and to form union with the second group; and, lastly, many proceed upwards between the layers of the broad ligament. From the second group go nerves to the uterus, and some of these by the side of the organ to the Fallopian tube, giving in their course twigs to the anterior and posterior surfaces of the uterus; this group also sends twigs to the ureter, the bladder, and partially to the vagina. Thus, the first group may be called ganglia recto-vesicalia, the second ganglia utero-vesicalia. The connecting twigs of the groups are about two millimètres long.

On the twigs which go from these groups to the rectum, vagina, and bladder, we meet with no ganglia, so that they are quite isolated, lying above the vaginal laquear, and giving as a whole the appearance of the solid cervical ganglion of Frankenhæuser.

The position of the small ganglia which constitute the mass of the Frankenhæuser ganglion varies much in particulars. Sometimes small ganglia appear between

DESCRIPTION OF PLATES IV AND V.

Illustrating N. W. Jastreboff's paper on the Normal and Pathological Anatomy of the Ganglion Cervicale Uteri.

PLATE IV.

FIG. 1.—The pelvis of a newly-born female child. The right os innominatum removed. *Pl.* **Plexus hypogastricus.** *a.* **Ganglia utero-vesicalia.** *b.* **Ganglia recto-vaginalia.** *c.* **Twigs of sacral nerves.** *u.* **Uterus.** *v.* **Bladder.** *r.* **Rectum.** *d.* **Ovaries.**

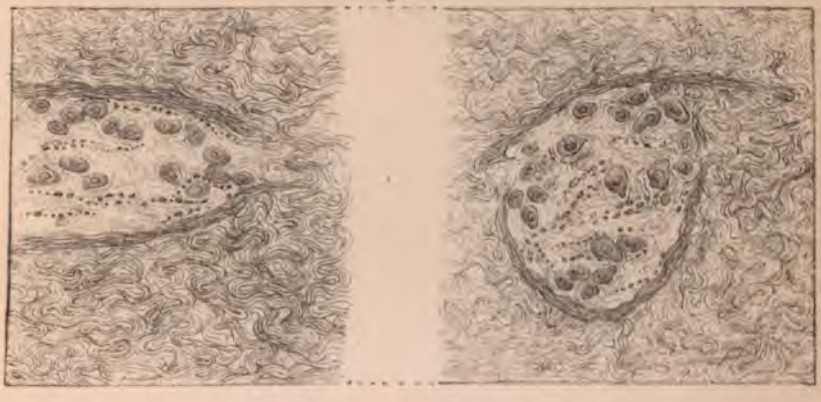
FIG. 2.—Two ganglia in one microscopical section (from the Frankenhæuser ganglion). Hartnack ⅔.

PLATE V.

FIG. 3.—Part of a normal ganglion, prepared with osmic acid. *a.* **Nerve-cells.** *b.* **Transversely cut myelin nerve-fibres.** *c.* **Blood-vessels.** *d.* **Peri-ganglionic connective tissue.** *e.* **Looser tissue surrounding the ganglia.** *f.* **Nerve bundles running to the ganglion. Hartnack ⅔.**

FIG. 4.—Part of a pathologically altered ganglion, prepared with osmic acid. *a.* **Nerve-cells.** *b.* **Periganglionic connective tissue.** *c.* **Growing endo-ganglionic connective tissue.** *d.* **Looser tissue surrounding the ganglion.**

Fig. 2.



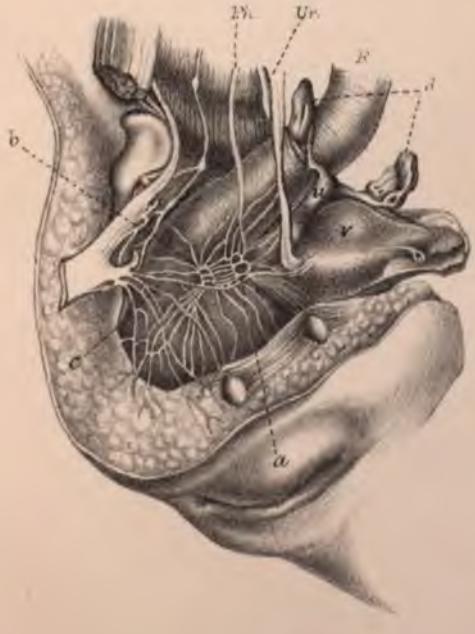


Fig. 1.

Dr Westmacott direxit

West Newman & Co

Fig. 3.

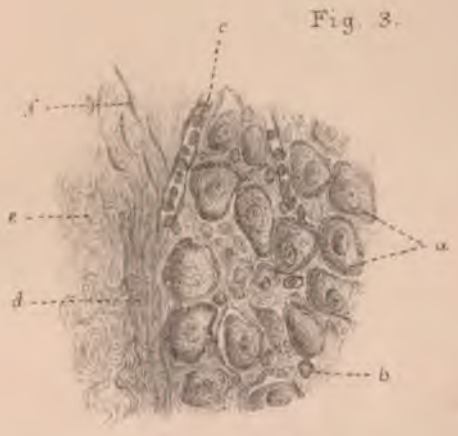
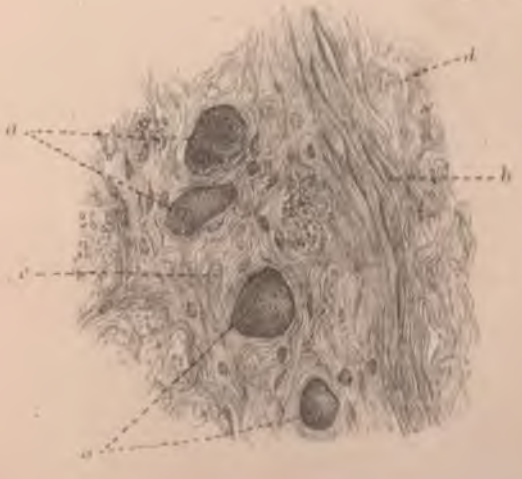


Fig. 4.



the groups, at other times the number of the ganglia appears to be increased. While this is not of much moment, it is important that the Frankenhæuser ganglion consists of many ganglia, which can be made out macroscopically. Here I must remark that I speak only of the nerve-ganglia which constitute the cervical ganglion of Frankenhæuser, taking no notice of the ganglia which are usually found at the side of the vagina and of the uterus. In this way I conclude from my investigations that the cervical ganglion of Frankenhæuser is a nervous plexus (in a histological sense) with ganglia enclosed within it.

Investigation of pathological examples will give us some light on the importance of this plexus for the uterus and ovaries. Here I must remark that the preparations examined by me were not previously treated with acids, and I therefore worked as if the plexus was a solid mass or as the ganglion of Frankenhæuser. I did this because I wished at a later stage to use osmic acid, and therefore considered the previous use of acetic acid as inadmissible. Consequently, also, I speak in the hereafter adduced cases in general of the changes in the ganglia which form the anterior part of the solid mass or ganglion of Frankenhæuser, that is, those which constitute our anterior group, or of the changes in the posterior group which form the posterior part of the solid mass.

The investigated cases are:

I. *Polypoid prominence of a part of the placental insertion (atonia uteri placentaris partialis); interstitial inflammation of the ganglia forming the anterior part of the cervical ganglion of Frankenhæuser; secondary fatty degeneration of the nerve-cells of the anterior group of ganglia.*

On the 16th April, 1880, G—, æt. 26, was admitted for her confinement into the maternity. Menstruation commenced at fifteen years. Her first pregnancy and labour

was seven years before admission. Her labour was normal. She did not nurse the child. The last menses before the pregnancy was in August, 1879. The length of labour was five hours and a half. The placenta was removed by the Credé method, a small piece remaining in the uterine cavity, which could be removed only on the second day after delivery. On the 26th day the woman died with signs of pyæmia, left side pleuritis, peritonitis, and purulent synovitis of the left knee. On the posterior uterine wall at the fundus, at the seat of the insertion of the placenta, we found a swelling projecting into the cavity. It was of the size of a walnut, elongated in form, and rough. On section it was found to be composed of uterine wall.

Microscopical investigation showed that the structure of the swelling was identical with that of the uterine wall, having no difference from the well-contracted parts. We had, therefore, to do with a polypoid projection of the site of insertion of the placenta into the uterine cavity, without corresponding depression of the outer part of the uterine wall.

Examination of the nerve ganglia revealed changes in the anterior group on both sides. We found an interstitial change with consequent fatty degeneration. In the uterus no pathological condition was found which could account for the polypoid growth. But the change in the ganglia (and its localisation only in some of them) was too old to be dependent on the disease which had led to the fatal event. On the contrary, it may be suggested that in consequence of the change in the ganglia those parts of the uterus to which twigs from the diseased ganglia proceeded had lost their contractility.

II. *Eclampsia during and after labour; death twelve hours after delivery; metrorrhagia; atonia uteri; fatty degeneration of the nerve-cells of the ganglia of the anterior group of the plexus.*

On 5th February, 1879, the farm labourer F—, æt. 24,

came to the clinic of Prof. Slawjansky, there to await her confinement. Menstruation commenced at eighteen years. Pregnant for the first time. The last menses before pregnancy were in May, 1878. On her arrival she had an attack of eclampsia. No albumen in the urine, and no element forms. Labour was completed by the Kristeller method; the placenta removed by the Credé method. Severe bleeding was stopped by ergot of rye. After the third eclamptic attack she became comatose, and died twelve hours after delivery. The uterus was large and flabby; its tissue, microscopically examined, normal. Especial attention was paid to the relation of the connective to the muscular tissue.

The already mentioned changes in the plexus were found in the ganglia of the anterior group. We therefore hold the fundamental cause of the uterine inertia to be the nervous system, for the uterine tissue was normal. Probably the inertia depended on the disease of the ganglia.

III. *Cirrhosis of the liver; ascites; fibro-myxoma of the ovaries; chronic metritis; interstitial inflammation of the ganglia of both plexuses.*

On April 10th, 1880, farm labourer P—, æt. 38, was admitted to the clinic. Menstruation first appeared at nineteen. At twenty-seven she was married. In her twenty-eighth year she had her first child, and was not ill after it, being quite healthy till January, 1880, but after this time she observed increased size of the abdomen. On the 13th April she died.

Microscopical investigation showed a chronic interstitial inflammation of the uterus. The ovarian swelling was a fibro-myxoma. In the ganglia of both groups and of both plexuses was found an interstitial change, and we cannot decide whether it is primary or secondary, but their connection with the disease is self-evident.

1. The cervical ganglion of Frankenhæuser, as a separate organ, is merely the result of a bad method of preparation.

2. The ganglion of Frankenhæuser consists of many ganglia, and is therefore a plexus in the histological sense of the word.

3. The ganglia forming the plexus are divided into two groups, which are connected with one another by nerve bundles.

4. Both groups of ganglia are found at the junction of the twigs from the sacral nerves with that of the hypogastric plexus.

5. The position of the plexus corresponds to the position of the cervical ganglion of Frankenhæuser, but not to the position of the utero-cervical ganglion of Lee, or of the plexus primus and secundus of Walter.

6. The plexus is in adults smaller than Frankenhæuser has represented it.

7. The plexus is not like those plexuses of authors who do not recognise the ganglion of Frankenhæuser.

8. To make out the plexus macroscopically, reagents must be used which make the tissue looser and translucent.

9. There is a patent connection between the diseases of the plexus and those of the uterus.

10. On disease of the ganglia most probably depends functional disease of the uterus in the different stages of labour.

11. Simultaneously with disease of the uterus the ganglia of the anterior group of the plexus undergo lesions.

12. There is a connection between diseases of the ganglia and those of the ovaries.

13. In them it is the posterior group of ganglia that are affected.

14. The comparative ages of the diseases of the ganglia and of the ovaries can be determined only by observation of a great number of cases.

Both the macro- and microscopical preparations were laid before Professor Slawjansky.

THE TREATMENT OF SPASMODIC DYSMENORRHŒA AND STERILITY BY DILATATION OF THE CERVICAL CANAL WITH GRADUATED METALLIC BOUGIES, WITH NOTES OF FIVE SUCCESSFUL CASES.

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As the heading denotes, I do not propose to enter upon the large subject of dysmenorrhœa, but to speak only of that kind known as spasmodic or obstructive, and in this paper I record only the cases occurring in married women, where sterility was associated with it. It will be understood, however, that the treatment applies equally to spasmodic dysmenorrhœa in unmarried women, many successful cases of which I could have brought forward.

This method of treatment by dilating the cervical canal with graduated metallic bougies was suggested to me quite recently by my colleague, our President, Dr. Matthews Duncan, and it was the success which I had observed follow the practice in his hands which induced me to adopt it. I am aware that his example and teaching has led many others to give this mode of treatment a fair trial, and they will, I hope, give us the result of their experience. The advent of our President to this metropolis has, I believe, been the occasion of resuscitating among us a treatment which had fallen into disrepute, and had given way to other methods supposed to entirely supersede it.

girl, æt. 22, the subject of amenorrhœa—or *emansio mensium*—for she had never menstruated, but who since sixteen years of age complained regularly every month of pains in the loins, together with a sense of weight and bearing down in the passages, latterly so severe as to incapacitate her for work; finding on examination that the os uteri was a mere depression, he conceived the idea of dilating the canal, and accordingly commencing with a small triangular probe, went on until he succeeded in introducing a No. 6 male bougie to the fundus of the uterus; the result was that menstruation was immediately established, and proceeded regularly without pain or inconvenience.

As there is no record of swelling before the operation, or escape of retained menstrual fluid subsequently, no better evidence could be brought forward against the obstructive theory. No doubt the probing acted as a stimulus to the uterus, resulting in the menstrual discharge.

This case, however, suggested to Dr. Mackintosh the use of metallic bougies for the treatment of dysmenorrhœa, still entertaining the idea of obstruction, although he says :*—"I am far from alleging that dysmenorrhœa is always produced by a small os uteri; on the contrary, I believe it may occasionally depend on inflammation of the lining membrane of the uterus, as well as on inflammation in the substance of the cervix uteri, and on the encroachment of tumours diminishing the calibre of the passage through the cervix."

Dr. Mackintosh proceeds to say that he employed the dilators in twenty cases of dysmenorrhœa, permanently curing eighteen; ten only of these were married, living with their husbands, all were sterile, and seven subsequently fell with child. This is the statement made in 1839. Since that time he had tried the practice in seven

* 'Principles of Pathology and Practice of Physic,' by John Mackintosh, M.D. London, 1836, vol. ii, p. 431.

other cases after all other means had failed; in one of the seven only did it fail, the other six were completely and permanently cured, and four of these bore children.

It appears, therefore, that out of seventeen married women, eleven, who were previously barren, became pregnant. Several of the cases are published *in extenso;* one woman had been married between seven and eight years, another three years, and so on.

He says:—"The instruments employed to produce the dilatation are the common metallic bougies, of different sizes, from that of the ordinary silver probe to No. 14. The operation is performed (the patient lying in the position in which women are usually delivered in this country) by introducing the index finger of the left hand till it reaches the os uteri, for the purpose of directing the instrument to the part, which is then to be gently insinuated by a rotatory motion till it arrives at the fundus of the uterus. *Much force ought not to be employed.*"

With regard to the length of time after the dilatation that impregnation took place, "three months afterwards" is mentioned in one case, and "some months afterwards" in another.

I find that the bougies were exhibited by Dr. Mackintosh at the Liverpool meeting of the British Association, and they are described as "like long knitting-needles." It is evident, therefore, that they were straight, as they are stated to have been by Sir James Simpson before the Medico-Chirurgical Society of Edinburgh, July 3rd, 1844. By the kindness of Professor Alexander Simpson, of Edinburgh, I am able to show you two of these bougies;

one is marked No. 4, the other 14. It will be observed that the points are excellent as regards their conical shape.

"In speaking of dilatation of the os and cervix uteri as a means of cure for dysmenorrhœa, Dr. Simpson pointed out the results of this practice in the hands of the late Dr. Mackintosh in the cure of dysmenorrhœa and sterility connected with normal and inflammatory strictures of the os uteri. His own results had not been so successful as those of Dr. Mackintosh, but he had now seen a considerable number of severe cases in which dysmenorrhœa, that had previously resisted all other kinds of treatment, had at once yielded to the mechanical dilatation. Dr. Simpson had found the stricture occasionally at the os internum or opening between the cavity of the cervix and body, and not at the os tincæ. Dr. Mackintosh had effected the dilatation by long straight bougies of different sizes. Dr. Simpson had found them more easily used when slightly curved. Latterly, Dr. Simpson had in his practice thrown them aside, and used permanent bougies or stems made of Berlin silver, and he considered them far preferable."*

I quote this at length to show that Sir James Simpson used them with success though he discarded them, and that he was apparently the first to curve them as they are now employed.

The next note I find about them is in 'A Practical Treatise on the Diseases peculiar to Women,' by Samuel Ashwell, M.D., London, 1848. He says:—"And Dr. Ryan entirely cured one of the very bad forms of dysmenorrhœa by metallic bougies. As the introduction of bougies must act as a direct and powerful stimulus, the advantage, even when constriction really exists, may not be entirely attributable to dilatation."

Baker Brown, in the 'Surgical Diseases of Women,' 1866, p. 285, speaks of elastic tubes like catheters, of different bores, which he passes over a stilette first introduced into the uterus. He quotes two cases of ladies, one married three years, aged twenty-seven, the other, aged

* 'London and Edinburgh Monthly Journal of Medical Science,' Aug., 1844, p. 734.

thirty-one, twice married, both sterile and subjects of dysmenorrhœa, who, after dilatation, lost their pain and became pregnant.

Next comes a violent adverse criticism. In the 'Lancet,' March 4th, 1865, and following numbers, are published lectures by Dr. Marion Sims, which were afterwards compiled in a volume entitled 'Uterine Surgery.' We find the following:

"M'Intosh dilated the cervix with bougies, but whoever has followed him must have been struck with the uncertainty of the result as well as with its painfulness, to say nothing of its danger. *A priori* it would seem a trifling thing to pass a bougie along the cervix uteri, but I have known it to be followed by most serious results." He goes on to describe a case in which he passed on one day a small bougie, next day a larger one, and two or three days afterwards a conical bougie, dilating the os externum to about a No. 9. There was a slight laceration of the contracted os. The patient nearly died from metro-peritonitis. He adds:—"This was my last bougie case; I have known several cases of the same sort in the hands of others in my own country, and I have seen two in Paris during my short sojourn there."

It will be observed that the bougies were not passed at one sitting, but at intervals of a day or days, and that the os uteri was split. This is sufficient to account for the untoward consequences. If Dr. Marion Sims and his friends had passed the bougies one after another in gradation, he would probably have had better results. I can only say that I have seen now a very considerable number in my own hands and those of others without a single catastrophe happening. At the same time, I have seen inflammation of the womb and its surroundings follow the passage of an ordinary uterine sound, where no difficulty was experienced, and I have seen disastrous effects follow the introduction of a large male catheter into the uterus without previous dilatation. No manipulation about the

cervix uteri is absolutely free from dangerous consequences. There would be no difficulty in finding plenty of such in connection with division of the cervix, which Dr. Marion Sims upholds.

In the 'Lancet' for April 8th following, Dr. Gream takes up the defence of dilatation, and says:—"I have seen pregnancy repeatedly, and often immediately, supervene upon the same operation for cure of dysmenorrhœa in married women."

Soon after this, on June 7th, 1865, a paper was read before this Society by Dr. Barnes, entitled "On Dysmenorrhœa, Metrorrhagia, Ovaritis, and Sterility, depending upon a peculiar formation of the Cervix Uteri, and the treatment by Dilatation or Division." Dr. Barnes says:—"If dilatation were proved to be more safe and efficacious than incision then it ought to be preferred. Evidence is conflicting. I cannot, however, estimate lightly the circumstance that men of great experience, sagacity, and resources, like Simpson and Marion Sims, have abandoned dilatation in favour of incision. They have found dilatation neither safe nor efficacious." Dr. Barnes advocates the division only of the external os uteri; he speaks of a great quantity of glairy mucus that sometimes escapes from the canal of the cervix after the incision.

Dr. Matthews Duncan, in a paper on dysmenorrhœa in the 'Edinburgh Medical Journal,' May, 1872, describes the operation as performed between two monthly periods, and it consists in introducing as large a bougie as will easily pass (a No. 10 or 11 in the ordinary male urethral series); on each successive day a larger bougie is introduced, till after several introductions, say seven, a large bougie is passed (a No. 18 or 19 in the ordinary male urethral series). This is the method recommended by Dr. Duncan, and in his 'Clinical Lectures,' lately published, he says:—"These various numbers are not all used in one day, but on successive days, or every second or third day, and generally the whole is effected in a few sittings, say, from four to eight."

In a very interesting and instructive paper in the 'British Medical Journal' of November 9th and 16th, 1872, entitled "Researches on the Mechanical Dilatation of the Cervix Uteri, and the appliances used for the purpose," Dr. Duncan shows, as the result of experiments described, that each dilator expands to the extent of about ·02, or one fiftieth of an inch, beyond that immediately preceding it in the series, and the bougies in Dr. Duncan's case are numbered according to this extent of dilatation. No. 13 would, therefore, expand to ·26 inch, or about a quarter of an inch in width. Dr. Duncan lays much stress on the point of the dilator being of a conical shape. He concludes that "dilatation without causing a wound, is safer than, and therefore preferable to, dilatation by cutting or tearing instruments which do wound; also that dilatation quickly or by instruments which are not allowed to remain is safer than, and therefore preferable to, dilatation slowly or by instruments which are left for hours or a day in the passages.

Dr. Aveling and Dr. Atthill, in commenting on this paper in subsequent numbers of the journal, object to this dilatation on account of the force required to be used. The slightest push means force; beyond this really the word *force* is misleading, gentle continuous pressure is all that is required. Force *must* be used, however gentle and easy. No considerable force *should* be used.

I have treated altogether ten cases of dysmenorrhœa in married women in whom pregnancy had not occurred.

In one of these the dysmenorrhœa was much diminished during the two periods which followed the dilatation. It then returned as badly as ever, and I decided to introduce a silver stem, and leave it in the uterus. This case is referred to later on. She has been cured of her dysmenorrhœa, but pregnancy has not followed. It is only fair to state, however, that her husband is seventy years of age.

In four of the other cases the dysmenorrhœa was cured, but as far as is known pregnancy has not resulted. One, a hospital case, has been lost sight of. Another had her

cervix divided by the metrotome before coming under my treatment. In five of the ten patients pregnancy occurred. The notes of these are as follows:

Case 1.—On May 5th, 1880, I received a letter from a gentleman in the North of England, saying that a lady was desirous to consult me for the reason that she had been married several years and, not having had any children, was anxious to satisfy herself if there were any possibility of her becoming a mother. On May 24th she came to see me by appointment. I ascertained that she was thirty-two years of age, had been married four years, and was in good health, with the exception that she had a good deal of pain at her monthly periods; this had increased since marriage, it varied very much in its severity, and was of a spasmodic character; only occasionally did it lay her up. Since marriage the menstrual loss had been very profuse, it had always been somewhat so. The last period had terminated four days since. I found a somewhat small external os uteri, and the uterus slightly anteflexed; the cervix was in its shape and size natural. The sound entered without difficulty, but with considerable pain, two inches and three quarters; I subsequently passed Nos. 7, 9, 10, 11, 12, and 13 dilators, leaving each in a few minutes. As each succeeding dilator passed the pain experienced was less severe, it was of the character of that experienced at the monthly times. It should be noticed that the complaint of the patient was sterility, *not* dysmenorrhœa; the latter was bearable, and but for the former she would not have applied to me. I directed her to see me again after menstruating twice, and to then appear soon after a period.

She presented herself on July 30th, stating that there had been a marked decrease in the pain on each occasion, it had not at all incapacitated her. On this occasion I passed Nos. 6, 8, 10, 12, 13, and 14 bougies; the pain was less than on the previous visit, there was no discharge of blood. I advised her to have patience, and to come

and see me again in six months if she did not become pregnant.

I heard no more of her till April 21st, when I received a letter full of gratitude, informing me that she expected to be confined early in August—and I have since seen the announcement of the event. From this it appears that she became pregnant towards the end of October, having menstruated three times since I last passed the dilators.

Case 2.—Mrs. W— was sent to me by Mr. White, of Margate. Aged twenty-nine, had been married eight years, never pregnant. The catamenia commenced at the age of seventeen, have always been regular, very scanty, always very painful, worse on the first day, comparatively little afterwards, but is left very weak from the severity of the pain on the first day. The pain is in the hypogastrium, and is like so many knives cutting in; it is not constant, there are periods of repose. It gets worse each time now, sometimes makes her sick and roll about on the bed. The last period was a fortnight ago; it was the worst, entirely preventing her from leaving her bed for two days. Having a great deal to do, managing a boarding-house, she decided that she must give up her employment if she could not get relief. Has a good deal of leucorrhœa, worse before, and after being unwell, it is flaky. Has a frequent desire to micturate.

Examination: per abdomen.—Tenderness in hypogastric region; *per vaginam.*—Cervix long, os somewhat small, no anteflexion; both ovaries can be felt, the right appears swollen and is very tender. Sound passes with much pain, two inches and three quarters. Dilators 7 and 8 passed; could not proceed further as the pain during the passage of each was so great that the patient screamed out, and vomited the contents of her stomach. I noticed that a quantity of viscid mucus passed with each dilator, as if it had been pent up in the canal of the cervix. I ordered a tepid douche and a mixture of bromide of ammonium with citrate of iron, and heard no more of her till a

few months afterwards Mr. White added a postscript to a letter about another patient.—"You quite cured Mrs. W—, whom I sent to you suffering from dysmenorrhœa; she had one period after she saw you, without any pain, and immediately afterwards became pregnant."

Case 3.—Mrs. L—, æt. 22, married two years, applied to me on April 26th, 1880, complaining of impairment of health since marriage. The catamenia commenced at the age of sixteen; always suffered pain at these times, but since marriage had suffered agonies, retching violently. To use her own words, she had been to eight doctors for it, and none of their medicines gave her any relief. She objected to be examined, was a nervous woman, full of pains everywhere, the only tangible complaint being the dysmenorrhœa, which she described as occurring suddenly the day before the flow appeared, attaining its height on the first day, and subsiding on the second, spasmodic in its character at first, leaving subsequently a feeling of aching in the lower abdomen and back. I prescribed for her general health, and for the dysmenorrhœa gave her the following mixture, which I have found very useful in similar cases in young unmarried girls:

℞ Liq. Ammon. Acetatis, f℥iij;
Ammonii Chloridi, ʒiij;
Tr. Belladonnæ, f℥ij;
Sp. Chloroformi, f℥ij;
Aquæ Camph. ad f℥vj.

A sixth part to be taken immediately the pain occurs, and to be repeated in three or four hours if not relieved.

This prescription, although it was said to considerably mitigate the pain, did not cure it. The general health improved but little, notwithstanding a prolonged visit to the seaside. On September 27th I made an examination. The cervix was short, os somewhat small, and the uterus somewhat anteflexed. I passed the sound two a half inches in normal direction with considerable pain; I could not persuade the patient to allow me to pass more than

two dilators, Nos. 7 and 8; each was left in about five minutes. The three following periods were comparatively free from pain. She then became pregnant, and I delivered her on September 15th of a child weighing ten and a half pounds.

Case 4.—Mrs. T—, æt. 24, married two and a half years, consulted me on October 23rd, 1880. She had suffered pain always during the periods, generally commencing with the first flow, though feeling ill for two days previously with much backache. The pain is chiefly in the hypogastrium and right iliac region, of a very acute character, lasting for several hours, alternating in intensity. It is accompanied by numbness in the legs, especially the right. There is almost invariably sickness at this time. The symptoms have been aggravated since marriage, and are getting worse. The periods are generally regular. Cannot bear the slightest pressure round the waist. Bowels irritable, constantly acting without diarrhœa. This was the statement, not elicited by questions, but brought by her, written out by the husband. The digital examination discovered nothing abnormal beyond tenderness on tilting the cervix backwards and forwards. There was slight anteflexion. The probe passed two inches and three quarters, with severe characteristic pain. I succeeded in passing Nos. 7 and 8 dilators, when the patient began to retch, and declared if any more had to be done she must have chloroform. In conversing with her subsequently I remarked, "I should not be surprised if you became pregnant after this." She showed great displeasure, and said she would never have come near me if she had had any idea of such a probability. Their limited income permitted herself and husband at present to have every comfort, and to have a small house in a fashionable locality, but a child would upset everything, she would not have one for the world. She had never had a symptom of such a thing.

On December 31st, eight days subsequently, I was sent

for to see her; she was then menstruating, and was rolling about on the sofa, saying her pain was worse than ever. I gave her the prescription I have already quoted, and it relieved her to a considerable degree after two doses.

I told her that I thought the instruments had been passed too near the period, and that probably the good effect would be produced at the next menstrual epoch. This proved to be correct. She had two periods with hardly any pain, and has had no more. I attended her in her confinement a week since.

Case 5.—E. F—, æt. 25, married three and a half years, applied on June 1st, 1861, at the out-patient room of St. Bartholomew's Hospital, under the following circumstances.

She had suffered for seven months from sharp cutting pains in the left iliac region, which were aggravated by exertion. The monthly periods were regular, scanty, and preceded by severe pain, which continued for several hours, obliging her to lie down, and frequently giving rise to vomiting. Very little leucorrhœa.

A vaginal examination showed the external os uteri to be of natural size, the fundus somewhat anteverted. The sound passed two and a half inches in the natural direction, with some difficulty at the internal os, and causing very sharp pain, like that experienced at the monthly periods.

The uterine dilators Nos. 6, 7, 8, 10, and 12, were passed.

On June 22nd the patient reported that she had menstruated the previous week with less pain, and without sickness.

On July 27th she stated that for the first time she had gone over her time for being unwell; she should have been so three weeks since.

I last saw her on September 10th when the signs of pregnancy were fully established. She had menstruated only once since the dilators had been passed.

I now refer briefly to the case of a lady, æt. 33, who

had been married for eleven years, her husband being now about seventy years of age. They had no settled abode, and preferred to travel about, staying chiefly in hotels. She suffered from spasmodic dysmenorrhœa more severely than any patient I ever met with. When the pain was at its height she would roll on the bed and scream like a woman in severe labour, so that the hotel proprietors complained of her. All the remedies she had tried only relieved her slightly and temporarily. When she applied to me I passed only two dilators, Nos. 6 and 7; they gave rise to the characteristic severe pain, and I had difficulty in persuading her to allow me to introduce the second bougie. She left London, and came to see me three or four months afterwards, saying that though the pain had been certainly less during the two or three periods following the dilatation, it had returned as badly as ever. I proposed repeating the operation, but she begged me to try something else that would be more permanent in its benefit, as she wanted to go on the Continent before very long. I agreed, therefore, to try a silver stem pessary, and accordingly inserted it at her lodgings, keeping her in bed for a day or two subsequently. The next period was passed without pain, but during the following one the pain suddenly occurred, and being in Bath she sent for Dr. Cole, who found it in the vagina and reinserted it, with almost immediate relief. The same circumstances occurred not long afterwards when in London, and I decided then to introduce a Wynn Williams shield beneath it. This had the desired effect, and for upwards of twelve months the patient wore it, and travelled about on the Continent, suffering no pain whatever. I had great difficulty in persuading her to allow me to remove it. Now, however, she menstruates without it free of pain, and is in perfect health.

In this case the dilatation was very imperfectly performed, and there were other circumstances connected with her married life against the probability of her becoming pregnant.

Of my five successful cases the ages of the patients were respectively 32, 29, 22, 24, and 25, and their terms of married life 4, 8, 2, 2½, and 3½ years respectively. No doubt it will be argued that the last three cases are weak on account of the shortness of these periods. I do not attempt to say that if left to nature some of these patients might not have at some future time become with child, but no one will deny that if a young healthy woman live in frequent intercourse with a vigorous husband, and does not become pregnant during a period of two years and upwards, an impediment must exist somewhere, and I have every reason to conclude that in my cases the impediment lay in the condition of the womb which gave rise to the dysmenorrhœa, and that as soon as this was rectified the barrier was overcome, and pregnancy occurred. It matters little, therefore, whether the patients had been married two years or eight, so long as the dysmenorrhœa still existed.

I present to you the case of dilators which I use (see diagram); you will observe that I have arranged them so that they occupy but little room, and can be carried in the pocket, one handle serving for all. I have lately

seen a small case manufactured by Messrs. Krohne and Seseman for Dr. Edis, showing that the same idea originated with him; I had no notion of this till long after mine was made for me by Messrs. Arnold and Sons.

In conclusion, I submit that the five patients whose histories I have related are sufficient to show that dilatation of the cervical canal by graduated metallic bougies is a treatment not to be put aside and discarded.

Notwithstanding the severe criticism of Marion Sims, and its acceptance by other distinguished gynæcologists, I venture to say that the method properly conducted is not a dangerous one—is, indeed, safer than any other. The first bougie passed should be a small one, and there should not be sufficient difference between the size of it and that which follows to cause a splitting of the cervical canal, an occurrence which is likely to arise under other circumstances; the dilatation should, therefore, be performed at one time, and not on successive days, as hitherto recommended.

I do not mean to assert that dilatation by bougies is always successful; if it fail, other modes of treatment may be tried, the insertion of a silver stem, for instance, as in the last case I narrated, or division of the cervix. But I look upon these as more complicated and attended by more risk. I have seen so much harm follow the careless introduction of stem pessaries that I never venture to insert one without keeping the patient at absolute rest for two or three days afterwards, whereas the process of dilatation can be conducted with safety in one's own consulting room, the patient walking away and returning home afterwards.

And, with regard to incisions, I was in the habit of just nicking the sides of the external os with the puncturing lancet in the out-patient room, until several cases of inflammatory mischief causing fixation of the uterus followed, and I was compelled to discontinue the practice. My cases show that a very small amount of

dilatation is necessary; in three out of the five cases two bougies only, Nos. 7 and 8, having been passed—and an important point from my observations, upon which I would lay stress, is that the time selected for performing the dilatation should be within a week or ten days after a monthly period, and not close upon an approaching one.

The points I would place before the Society are:

1st. *How do the dilators act in relieving the dysmenorrhœa?* I have already suggested that the pain seems to be due to spasm, which at the approach of the menstrual flux seizes upon the uterus, the endometrium of which is in a state of hyperæsthesia.

The contact of a foreign body with this seems at first to increase its morbid sensibility, but as the structure get accustomed to its presence its sensibility becomes blunted, and the spasm subsides. The impression left upon the endometrium after the withdrawal of the bougies is such as to render it less sensitive and liable to spasm. How is this explained?

2ndly. *The dysmenorrhœa being got rid of, pregnancy occurs.*

In none of my cases was there either stenosis or constriction of the canal by acute flexion. The theory, therefore, of permanent constriction being discarded, in what did the impediment lay? Was it a spasmodic constriction causing ejectment of the semen?

It is possible that in Case 2 it might have been due to a large plug of coagulated mucus, for such was observed to come away during the dilatation, and pregnancy occurred immediately afterwards. But in none of the other cases was this noticed, and in three of them pregnancy did not ensue for a period of from two to four months. The idea of obstruction from a plug of mucus, therefore, must be rejected.

Dr. Graily Hewitt had found that in the large majority of cases relief of dysmenorrhœa was obtained by simply maintaining the canal of the uterus in a state of straightness. In

cases where the uterus was unduly soft and pliable dilatation was not necessary, but in long-standing cases dilatation was a great assistance in the treatment. He had used as a dilator a two-bladed instrument acting on the principle of a glove stretcher. It produced the same kind of effect as the dilators now exhibited. He had cured many cases of sterility, some of ten or even thirteen years' standing, by the above treatment. In regard to diagnosis, cases of very soft flexed uterus were sometimes overlooked, as in a case he mentioned, owing to the apparently easy passage of the sound. He considered Dr. Godson's paper a very interesting one, and dilatation an important method of treatment.

Dr. Heywood Smith said that reference had been made in the paper to the President's experiments as to the flow of fluid through bent tubes; but whatever their substance and material, Dr. H. Smith contended that such experiments failed in their analogy to the uterine canal, for such tubes were homogeneous in their structure and uniform in their calibre, whereas the uterine canal was of varying thickness and of such a substance as rendered its canal obnoxious to impressions on its inner surface from any flexion that it was subjected to. He congratulated St. Bartholomew's Hospital in having so long ago initiated so sound a line of practice as that referred to in the paper, and also of carrying out that practice up to the present time. For it was in 1836 that his father, then assistant lecturer with Dr. Rigby, used Mackintosh's bougies for the treatment of dysmenorrhœa and sterility up to 1848, and since the foundation of the Hospital for Women that method of procedure had been practised and taught with the greatest possible advantage, as his colleagues would also be able to testify. He considered the graduated sound exhibited was not of the best shape, being too much curved. The best shape was that of the ordinary sound, straight in its handle and straight also as to its uterine portion, and having a raised collar to mark the length of the uterine portion. The graduated sounds are also of great advantage when it is desirable to use intra-uterine medication, for the sound can be used with the greatest facility up to No. 10 or so, and then the introduction of Playfair's probe is thereby rendered comparatively easy, besides which all risk of using tents is thereby obviated.

Dr. Carter said he quite agreed with the writer of the paper as to the good results which follow the dilatation of the cervical canal in such cases by the use of graduated sounds. He had obtained exceedingly satisfactory results both as regards dysmenorrhœa and sterility when it accompanied it. He did not think he had incised the cervix uteri for dysmenorrhœa more than ten or twelve times during the last seven or eight years.

With regard to the flabby condition of the uterus to which Dr. Bowen referred, he had found that dilatation alone was not sufficient, and in such cases he had employed an intra-uterine stem with the best results. One patient in particular had worn one seven months, and on its removal the old pains returned; it was replaced and worn for thirteen months, with entire freedom from pain at the "period." Dr. Carter never passed the graduated sounds within a few days (four to five) of the commencement or cessation of the flow, as he had found on several occasions some slight inflammation resulted, as shown by some granular erosion around the os uteri, and therefore pressed the caution given as to this by Dr. Godson.

Dr. Bowen said that, successful as the plan had been in Dr. Godson's hands and those of the President, he did not see what advantage it possessed over that of dilatation, first by tangle tents, and subsequently the employment of an intra-uterine passage. Originally some plan analogous to that of Dr. Duncan's had been in use in early days in the Samaritan Hospital, and he (Dr. Routh) had in his possession several varieties used once employed by the late Dr. Jones there, but it had been found that their use was not so free of danger as stated to-night, and it had been abandoned. When, moreover, such men as Sir J. Simpson and Dr. Marion Sims had discarded them because of their danger, clearly they should not be lightly resumed. First, the effect was not permanent unless very soon afterwards pregnancy occurred. In virgins it could therefore only produce a transitory good result. Again, the very condition of the uterine lining membrane in these cases appear to him (Dr. Routh) to call for an opposite treatment. Dr. Duncan had stated in his lectures that in these cases he had *between the periods* passed in a sound or bougie and found no obstruction, but the mucous membrane of the uterus in a *woman about to menstruate* was in a state of tumefactive turgescence, or perhaps subacute inflammation, and if the bougie or sound had been passed then it must have certainly met with more obstruction than it passed between the periods. The condition was analogous to the senile endometritis which both he and Dr. Duncan had described years ago. The same character of pain, flying in the back and down the legs, coming on spasmodically. In cases of senile endometritis these symptoms were due to obstruction at the inner or external os. If either of these were opened out came a lot of mucus, and the patient was at once relieved. So in dysmenorrhœa. The thickened and swollen mucous membrane, which preceded the flow of menses, caused temporary obstruction, and this had to be overcome by a *vis a tergo*. Once this effected, which generally was so in two or three days' time, relief followed. Thus, the pain sometimes induced

by passing the bougie is very great. It was so in some of Dr. Godson's cases. Did not this prove there was some degree at least of subacute inflammation and congestion? Clearly, therefore, it was right to use depletory measures first, and then you could safely proceed to dilate. But the very dilatation by tents led to absorption of thickened parts, and the intra-uterine pessary often kept up for a time a loss of blood; such relieved the uterus. But all these dangers and difficulties were enhanced by flexing, yet none of Dr. Godson's cases were complicated by flexion. Every gynæcologist knew how difficult it was in some cases of flexion to pass a *bent* sound into a uterine cavity. It also often gave rise to serious accidents. Was it philosophical in such cases to use straight or scarcely curved bougies. To do so would provoke inflammation, and otherwise be useless. With either Dr. Williams' intra-uterine pessary, or his (Dr. Routh's), a uterus was not only kept dilated till the dysmenorrhœa was cured, but it reduced the uterus. The comfort of such instruments well used was such that women did not like to part with them; a few wished to retain them to prevent pregnancy, but Dr. Routh always removed them after eight or twelve months, not to prevent, but to make pregnancy more sure, and, he was happy to say, this frequently followed the use of his instrument. Even Dr. Godson had applied in one of his cases an intra-uterine stem, which, *pro tanto*, proved his plan was defective, and, more than this, he was obliged to use one of Dr. Williams' shields, showing the need of a support to keep the pessary *in sitû*.

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